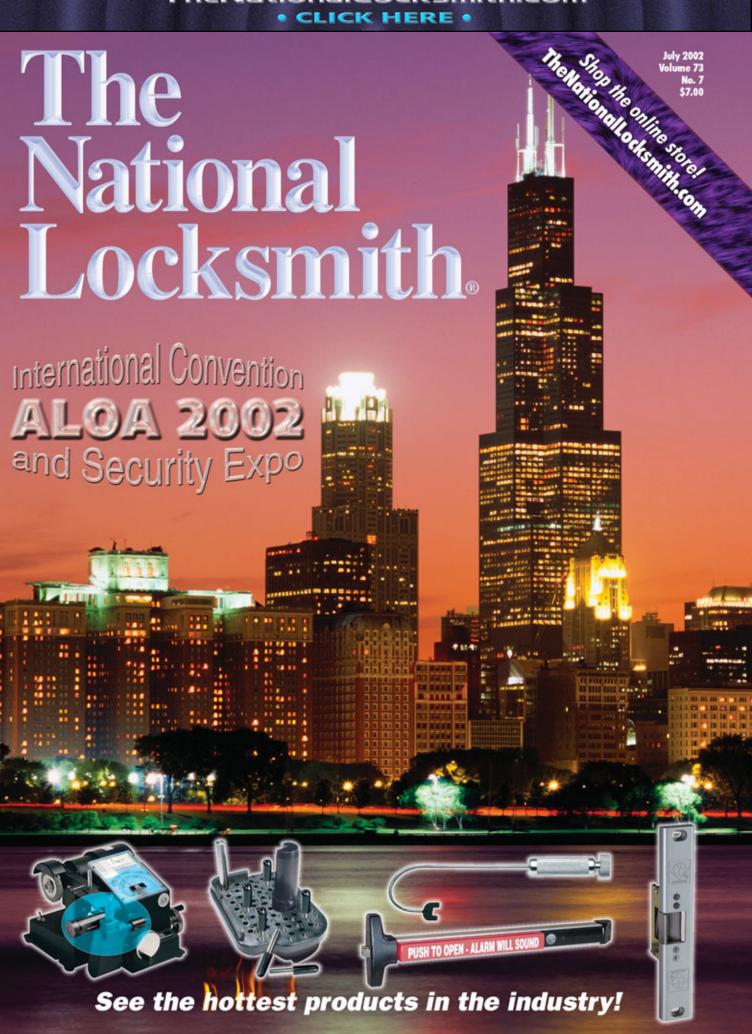
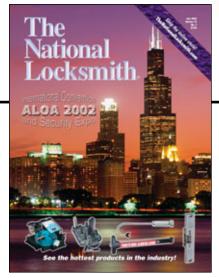
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### On The Cover...



This year's ALOA Convention is just a stones throw from The National Locksmith in Rosemont, IL. Don't miss the latest products by HPC, PRO-LOK, Lockmasters, Detex and Adams Rite, and be sure to stop by our booth and say hi.

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# DNTENT

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# COMMENTARY



### **More Amazing Locksmith Stories**

Once again, locksmiths are in the news. Sometimes it is amusing and illustrative to see how our profession is mentioned in the media.

From Shooting Industry magazine:

### **Stupid Criminal Tricks**

Sean Barry learned an important lesson about handcuffs: Don't mess with 'em unless you're really, really sure where the key is. Sean kinda assumed the key was in his pants when he cuffed himself during a moment of brainless boredom, then discovered, not for the first time we think, that he was wrong.

From there, careless went straight to stupid, and he called Phoenix, Ariz., police for help, rather than a locksmith. Officers were happy to give him a hand, but before they unlocked the cuffs, they ran a routine warrant check on Sean. Then they decided to leave the cuffs on. Barry was wanted on several warrants, one for driving on a suspended license. The arresting officers noted Sean didn't resist — handcuffing.

From the Highway Loss Data Institute

### Acura Integra most stolen passenger vehicle on list 1999-2001.

- 1. Acura Integra
- 2. Jeep Wrangler
- 3. Jeep Cherokee 4WD
- 4. Honda Prelude
- 5. Mitsubishi Mirage
- 6. Chrysler 300M
- 7. Hyundai Tiburon
- 8. Dodge Intrepid
- 9. Mitsubishi Mirage
- 10. Chrysler LHS

### **Highest Theft Rates**

According to the National Insurance Crime Bureau, vehicle theft is on the rise again. The NICB, which analyzed 2001 data of the major metropolitan statistical areas, has compiled the cities with the highest theft rates below.

- 1. Phoenix, Ariz.
- 2. Miami, Fla.
- 3. Fresno, Calif.
- 4. Detroit, Mich.
- 5. Sacramento, Calif.
- 6. Tucson, Ariz.

- 7. Tacoma, Wash.
- 8. Stockton, Calif.
- 9. Seattle, Wash.
- 10. Jersey City, N.J.

From AP news:

### **Toddler Rescued From Bank Vault**

WILLIAMSBURG, Pa. (AP) - A toddler playing hide-andseek became locked in a bank vault and spent nearly seven hours trapped inside, while rescue workers pumped in oxygen and sang to him, officials said.

The boy, 18-month-old Matthew Mingle, was fed juice through a tube snaked through a hole until a locksmith from Canterbury, Ohio, arrived after 12:30 a.m. Wednesday.

The little boy was in the Hollidaysburg Trust Co. bank with his mother, an employee, and was playing hide-and-seek when the vault closed around 6 p.m. Tuesday.

The vault is on a timed release and cannot be opened with the usual combination and keys after business hours, bank official Stephen Martz said. A video camera let rescue workers watch the boy while he was trapped, he said.

Firefighters sang songs to keep the toddler calm, and he eventually fell asleep, Blair County 911 supervisor Tim Crabtree said.

He was taken to Altoona Hospital and then released to his family. Williamsburg is about 90 miles east of Pittsburgh.

Man Goldburg

Marc Goldberg
Publisher

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hieves have been around since the dawn of civilization. However, the art of theft in its purest form, has taken on a whole new meaning from yesteryear.

We have long been intrigued by the clever, and sometimes ingenious methods used by thieves to accomplish their goals. As frustrating and damaging as it may be, one can't help but marvel at the complexity and precise planning required to accomplish a great jewel or art heist, which is successful and no one is hurt.

### **Heathrow Airport Robbery**

Not long ago robbers got away with more than \$6 million in cash after a raid on a British Airways security vehicle at Heathrow Airport. The theft happened in a secure area beyond customs, and officials believe the robbers had legitimate security passes.

The thieves escaped in another vehicle which bore the livery of British Airways—and which was later found abandoned and burned.

### The Great Brinks Heist

Who can forget the great Brinks robbery? In January 1950, robbers successfully raided the supposedly "burglar-proof" Boston headquarters of Brinks Inc. When it was over, nine men walked out of the Brinks office with \$2.7 million in cash and securities, most of which is still unaccounted for.

### **Boston Art Museum Theft**

In March 1990, two men wearing fake moustaches and police uniforms bluffed their way into the city's Isabella Stewart Gardner Museum. They left with a dozen paintings—including canvases by Rembrandt, Monet, Degas and Vermeer—worth a staggering \$300 million.

A \$5 million reward for information leading to their return is still being offered.

### Biggest Successful Jewelry Robbery

The Guinness Book of World Records lists the world's biggest jewelry robbery as taking place in August 1994, when three thieves burst into the famous Carlton Hotel in Cannes. Firing machine guns, they robbed the Carlton's jewelry store just as it was being closed. They made off with \$40 million in jewels. It was later discovered that the rounds they had been firing were in fact blanks.

In all the previous examples of successful, cleverly planned heists, tangible valuables were the intended targets. While such items still tantalize and lure the attention of the seasoned thief, today more and more theft is occurring in the difficult to detect and trace cyber world. The new millennium thief is not a scrappy scar face thug from the Bronx, but a skinny pencil neck kid from California. Credit Card theft, ATM PIN number theft, electronic bank account theft, electronic money

### **Carbon Copy**

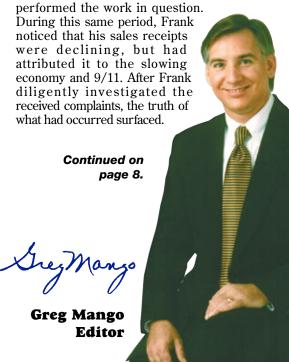
transfer theft, Cellular phone cloning, and even personal identification theft, have cost Americans, and have accounted for the loss far more than any art gallery theft, jewelry theft or bank robbery ever has. And, this form of electronic theft and personal identification theft is on the rise.

### **Locksmith Identification Theft**

In California, police detectives curtailed the activities of a bi-coastal scam targeting locksmith businesses that may be more wide spread than initially thought. The California Hermosa Beach Police coordinated an undercover sting and arrested 23 year old Navot Luria, with misdemeanor counts of possessing burglary tools and operating without a license. He was also allegedly operating a fraudulent locksmith business cloning scam.

### The Victim

Frank W. Hallstein Jr., owner of Hermosa Lock and Safe started receiving complaints from customers—including some of his regular customers—about shoddy work. Perplexed by these complaints, Frank checked his records to see when the work was performed. While doing so, he soon learned that his business had not



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### Continued from page 6

### The Scam

What Navot Luria had allegedly done was steal the Hermosa Lock and Safe identity. Police said Luria established a business telephone line in the name of Hermosa Lock and Key. When potential customers called 411 directory assistance for the phone number to Hermosa Lock and Safe, they were mistakenly given the number to Hermosa Lock and Key, since in alphabetical listings it would be listed on top.

Those who dialed the Hermosa Lock and Key phone number were forwarded to a boiler room operation in New York, (unbeknown to them) and a locksmith in the Hermosa Beach area connected with the bi-coastal ring was contacted and sent to the customer's address.

With the consent and help of a customer, Frank arranged to meet his carbon copy competitor at a job site. Frank said that when an unmarked white van pulled up and the purported locksmith jumped out, he asked him if he was Hermosa Lock and Safe and the man (who he later learned was Navot Luria) said, "Yes." Frank then asked to see his locksmith license, and Luria got rather perplexed and agitated at the line of questioning. "I wanted to strangle him," Frank said, "But instead I took down the van's license plate number and called Hermosa Beach police."

After looking into Frank's claims, Hermosa Beach detectives found that someone had been creating a number of business names that would appear just before the names of legitimate businesses in the 411 directory assistance listings.

### The Sting

Hermosa police called Luria's business number and requested his services rekeying some locks at a residence. Hermosa police used a vacant house as the bait and the stage was set. All they had to do now was wait for Luria's arrival. When Luria arrived at the sting location, he had no license, and failed to fill out a work order or ask for identification from the customer. He proceeded to do the work and then charged \$200 for what Frank estimated was a \$100 job. Sgt. Steve Endom told Luria he had done a good job and was entitled to a tip, then flipped open his wallet to show his badge and place Luria under arrest on suspicion of operating a scam business and possessing locksmith tools without a license.

According to the detectives, evidence was found at Luria's home that he was sending quantities of money on a regular schedule to a larger operation that appeared to be headquartered in New York.

In addition to cloning Hermosa Lock and Safe, the operation was also targeting at least one Redondo locksmith as well, and there may be more.

The FBI is now conducting its own investigation in the hopes of arresting Luria's East Coast accomplices and busting the entire ring. If the headquarters of the operation can be located, then information on other businesses being cloned in this scam should surface.

According to Sgt. Steve Endom, business cloning such as this is probably occurring undetected on a much



greater scale than anyone is aware of. This was a first for the Hermosa Beach police. If it's a first for Hermosa Beach, it's probably going to be a first somewhere else as well.

So, how can you assure no one is cloning your business name?

For starters, contact 411 directory assistance and ask if there are other business listings in your area that are similar to yours. If so, call them to see if they offer the same type of services. If you are XYZ Locksmith Services and another business is listed as XYB Locksmith Services, ask if they are XYZ Locksmith Services when you call. If they say they are, you may have discovered a clone.

While talking to the 411 directory assistance operator, ask what business number they give if someone calls information for a locksmith in your area, without specifying a particular business name. In Chicago for example, there is a fee charged by 411 directory assistance to be listed as a preferred business reference. In other words, if someone calls 411 directory assistance for a locksmith number in Chicago without specifying a particular business name, one of the fee paying preferred locksmith business numbers is given.

Check the Yellow Page directories and White Business pages for carbon copies as well, but be sure to also check with 411 directory assistance. In the Hermosa Beach incident, Luria's Hermosa Lock and Key listing was not listed in the Yellow Pages or White Business Pages. It was only listed with 411 directory assistance.

Just when you thought you have heard it all, someone comes up with a new scam, or an old scam with a new twist. There's one thing for sure; there's no shortage of individuals whose sole mission is a scam. And you thought cloning was only for sheep!

# Letters

July 2

2002

The National Locksmith is interested in your view. We do reserve the right to edit for clarity and length.

### Maybe A Little Biased?

Last month there was a letter by Mr. Stout regarding the transponder article that was printed in the *New York Times*, I was wondering what problems you have exactly with ALOA. From your post, you suggest that the organization doesn't look out for its members. Do you have any other examples of this, or did you infer this solely from the article that was reproduced? The following was stated in the article:

Moving to the transponder system has had several effects. One is to cut out locksmiths. "It can run up to \$50,000 for the equipment to duplicate the keys for cars," said Randy L. Simpson, president of the Associated Locksmiths of America, a trade association based in Dallas. And that is for each manufacturer; equipping a shop to make keys for all car brands would be well beyond the means of most locksmiths. Mr. Simpson said a glance at older cars would explain why a new key system was needed.

The National Locksmith
1533 Burgundy Parkway
Streamwood, IL 60107
Attn: Editor

"Mechanical devices were defeated in all kinds of different ways," he said. But however good the system is, Mr. Simpson of the locksmiths association said this was not the last step in car security. "They haven't defeated it yet," he said. "But I'm sure it's just a matter of time." In this sentence, Mr. Simpson was referring to criminals.

According to what Mr. Simpson says, there is nothing to indicate in my mind that he and his organization is looking out for their own interests over the locksmiths they represent. I think he could have been a little more encouraging about our role in the business, but if you notice, only three sentences were actually quoted from Mr. Simpson's interview, and none of them is disparaging to us, so far as I can tell.

I'm willing to bet that the interviewer took his statement out of context and assumed that most. or all transponder equipment cost astronomically high prices, because the sentence stating that most locksmiths would be unable to afford the equipment isn't even a direct quote. Mr. Simpson may very well have mentioned that most transponder equipment is reasonably priced to us locksmiths, but the interviewer might not have included it, seeing as that sort of statement would have gone against the sentiment of the article. Either way, I'm not trying to defend Mr. Simpson, but I WAS about to send a check off to ALOA for a membership, and I'd like to hear your opinion on whether my organization would or wouldn't be a good choice. If you've got some info behind your opinion, I'd sure appreciate hearing it. Thanks in advance.

> Redd Bristow E-mail



### **Special Interests**

Regarding the New York Times article and editorial from a couple of months back; in my opinion it is not that ALOA (or CLA, or any other association) is solely representing their own interests (I don't know what those would be other than representing locksmiths), but the lack of positive, identifiable public media representation. You are right, there were only three brief quotes in the article... that's the problem! None of them were particularly effective in convincing the public that locksmiths are capable of meeting the public's need for service. You might lav that blame to the writer of the article, but I think if there had been a resounding, confident statement affirming that the locksmith industry is ready and able to tackle this issue, it would have come through in the article.

I am not a Pollyanna. I realize that negative news sells, but when was the last time you heard or read a public service announcement from any of the associations. I have never seen any in 17 years in the industry.

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At a PureAuto seminar in San Francisco, author for The National Locksmith and Lockmasters representative Tom Lynch, asked the Ilco/Kaba/Silca representative what they were doing to help promote the idea that locksmiths are capable of handling transponder work. A valid question, since they were there trying to sell us a \$5,000 tool to do the work. He suggested a 30minute, ready for cable infomercial. The representative did not have a reply, but I would like to pose the same question to ALOA and any other association who is trying to represent locksmiths. Not just for transponders, but all locksmith work. I still have customers who are simply amazed that we can rekey locks or make keys for a car when they lose them. The only infomercial I am aware of that features a locksmith shows that he is incapable of opening or bypassing the product being sold.

Locksmith associations need to be more proactive in consumer awareness. When they are, I will consider rejoining. And don't get me started on the legislative activities of the locksmith associations - I still haven't forgiven the CLA for the last licensing debacle.

William Kimbley E-mail

### **Prize Winner**

Thank you for the fine door prize from the Yankee Security Convention. I apologize for the delay in writing this. We have many of Mr. McOmie's books, but "Bread and Butter" we did not have. I am sure it will come in handy.

Thanks again.

Rick King, CRL Vermont

### How Do I Improve?

I have been a subscriber to *The National Locksmith* for at least two years now. Much of the information in the magazine has been very useful to me, to say the least.

I have taken a course on safe lock picking, plus a fire and security course as well. The trouble is, there is very little need for locksmiths in my rural area. So how can I improve my skills to be a success in my area, where there is little need for locksmiths? Most

schools or banks have a representative company to handle their needs. That only leaves homeowners and small business owners to deal with. You see, in rural areas there is very little need for locksmiths, except for emergency lockouts. With home security systems the way they are, that makes locksmiths very insecure. I hope there is a solution to this problem other than relocating to bigger areas. Please keep us informed, we need each other in this business.

Raymond E. Long Nebraska

Publisher's Note: You bring up a thorny problem, but there is little you can do to create demand for a service in an area where there is limited demand for that service. However, you CAN be sure that everyone in your area does know that you do more than just lockouts. Be sure to spread a thousand business cards around your area, and I do mean a thousand. Include information on everything you can do for your clients. And read my Commentary in the June issue about how to form a Business Card Club. Marketing is all bout communication and persistence!

Marc G.

# Here's to Technitips and the Sponsors

Thank you so very much for the Technitips section of *The National Locksmith*, to the sponsors of the prizes and for each idea published. I read the Technitips section first thing, as soon as I get my new magazine! The tips are very valuable to a novice locksmith like myself. I have learned so much from the Technitips and *The National Locksmith* that I feel like an apprentice to a magazine! Thank you so much!

As for the prize sponsors...THANK YOU ALL! I appreciate the fact that you donate the prizes given for the tips in the magazine. And the best part is... all the prizes that I have won, some of which I never thought that I would ever use or need, I was sure glad that when I did need them, that I had them. As an example, an Air Wedge. I thought that I had all I needed and that wasn't on my purchase list. Now that I have one, I use it more than any other wedge that I have. It is simple and works great, but I would have never tried

it. But one was given to me as a prize and I thank you daily. Don't think that these prizes don't make a difference. I have since bought three more Air Wedges and have doubled up on some of the other prizes that I have won also. They are great, and I praise all the products that I have won to my friends, that have purchased items just from someone's recommendation, so don't think that the prizes go unappreciated, because they are greatly appreciated. Thank you!

### *Now to the readers:*

Hey guys! Got any tips or little tricks that you don't mind sharing? I learn new things daily and the Technitips section has helped me greatly in two ways. First, I read what you, my friends and fellow locksmiths, have to say and I learn. If you have been a locksmith for say 20 years or more, give us novice and beginning locksmith's a hand. I for one, appreciate everyone that sends in tips, because I have found that sooner or later I'll actually need to use that tip to get something done. I have only been in business since May of 2000 and have already had four or five tips that Jake has published. Just think how many tips someone with 20 years would have! Please share! I appreciate and tip my hat to all that have sent in tips, because you send them in to help me and that is so unselfish on your part for sharing, thank you.

Second, what is even better than seeing your name and tip being published? They send you prizes to thank you for your contribution! Have you seen the monthly prizes? Even more... have you seen the year-end prizes? I am more than happy to send in tips just to help out someone else just starting out, or even an experienced locksmith that might not have thought of a different way of doing something.

The prizes are useful as well, not some candy coated stuff, but real tools and real equipment. Items that can make you money or make a job easier. It also makes me feel like I have contributed or helped in some way, and a pat on the back goes a long way these days. So come on guys and gals...send in your tips, no matter if you think it's good or bad, too novice or too advanced, just send them in to Jake.

 $\Pi$ L

Frank Kitchen Indiana

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### A-1's Industrial Strength Key Punch

A-1 Security Manufacturing has introduced a new, Industrial Strength key punch for originating Small Format Interchangeable Core.

Inspired by the original "Best" key combinator, this equipment features interchangeable vises, so that locksmiths can punch a variety of keyways. The machine comes equipped with a standard SFIC vise assembly. Accessory vises and models are available for Arrow's Flexcore and (in conjunction with Medeco), accessories are available for punching KeyMark.

A-1's Mean Green Machine features a large depth knob that is mounted on the side for easy and visible access. The self-advancing mechanism provides smooth and error free punching.

### Aable Ford 8 Tool

Frank Markisello from Aable Locksmiths has designed the Ford 8 ignition removal tool kit. The kit has options where you can pick the lock without damage. Just fit a key and re-install. It also has the force tool, which enables you to just insert the tool in the face of the lock and turn the ignition to the on position, in less than 60 seconds.



Thru popular demand, from those who already have this kit, have requested the ability to purchase extra force tools alone, so we decided to make it available and now you can purchase just the force tool. This part will be available for \$70.00 plus \$4.00 S & H.

### A & B Safe Corporation Introduces The Viking Stainless

A & B Safe Corporation introduces a first in safe design, "The Viking Stainless." This is the industries first innovation in fire and burglary protection in many years. Quality construction and state of the art composite barrier protection are used to produce a safe that is strong, functional and also attractive.



The stainless steel constructions allows for easy maintenance and easy clean ups, with no rust, allowing for a sterile environment and a safe that will never look old.

This new style safe opens up many markets, which in the past had to accept a product that did not quite fit their requirements such as: hospitals, restaurants, marine environments, any situation where water could be a factor.

Each safe is equipped with a primary locking device, combination lock or electronic lock. Provision for a second locking device is provided as an option. This lock could be an addition combination lock, key lock or most any locking device of your choice.

The Viking Stainless comes in nine sizes, two of which have depository draws for deposit of currency or envelopes while the safe is locked.

### **ABLOY**

ABLOY Door Security
has introduced a newly patented
high security key system called the
ABLOY PROTEC. The PROTEC has
new world-wide patents, is virtually
pickproof, features an all-metal
reversible key, and offers 2 billion

combinations, along with one of the industry's most complete line of products.

### Adams Rite 71R2 Electric Strike

A variation on the Adams Rite 71R1 Strike, the 71R2 provides access for narrow stile doors that use a rim exit device with a 1/2" bolt. It allows remote control of the door without activating the



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### Continued from page 14

exit device. The case and mounting plate are made in zinc-aluminum alloy, with the bolt retainer jaw in brass. Like other Adams Rite strikes, the 71R2 can also be field converted from fail safe to fail secure.

### **Adesco Rotary Deposit**

The RD2008KC rotary deposit safe was designed specifically for the small business with space limitations. This double-door B-rated safe has outside dimensions of 20-1/2" H x 8" W x 15" D. The top door



receives money dropped into the rotary hopper and is secured with a dual key lock. The bottom is secured with a group 2 combination lock and is equipped with bolt holes for anchoring. The rotary hopper accepts packages up to 2-1/4" x 4-1/4" x 10" in size.

### AMSEC's Affordable Solution

The AMSEC CSC series composite safes are an affordable



solution when you want protection from both fire and burglary attacks.

During extreme testing procedures the CSC series safes earned the U.L. (RSC) Residential Security container burglary label and passed a 1-hour, 350° factory fire test certification.

The CSC series come standard with the ESL 10, U.L. Listed electronic lock, and is accented with a fascia panel, matching 3-point handle, plush velour shelves, back cover and base.

### **Detex Value Series/Weatherized**

Detex Corporation introduces the first outdoor loss prevention hardware engineered inside and out to stand up to all the elements. The Value Series/Weatherized is "Driving Rain" and "Salt Fog" tested to MIL Standard Compliancy and is all-weather finished throughout to reduce maintenance. With a 100+ decibel alarm, up to



1400 pounds of holding force, a rugged, durable, tamper-resistant design and stainless steel latch-bolt, it offers safe yet secure exit anytime, anywhere.

### **Digital Systems**

The Digital Door Lock is a totally mechanical, easy to use combination lock system. The combination can be reset in a matter of minutes, making this



lock ideal for homeowners as well as businesses. It is simple to install and built to last. This is the same lock that is used in the Eiffel Tower! The locks come conveniently boxed.

### The Pannex™ by DCI

The Pannex™ is a patented, UL certified ANSI/BHMA Grade 1, 3-hour fire-rated Rim Exit Device featuring a unique interlock latch and strike, making it far more secure and virtually tamperproof than other exit devices. It is available with dogging, alarms, remote electric unlock/lock, and also can be combined with our access controls line. It is the perfect solution for achieving maximum security for either restricted areas or supervised entrances.



### Framon Manufacturing

Framon Manufacturing is now offering a demonstration key machine program on our entire line of machines. The program allows



you to try a machine for up to 14 days before deciding to purchase the machine. Shipping charges are the only cost to the demo machine.

### **Gardall Record Safe**

Gardall is proud to introduce its new re-engineered series of two-hour record safes. With seven sizes to choose from and lock options that include both mechanical as well as electronic, we are sure there is a safe available for every customer.

Standard options include 2-hour fire label, center bolt down hole, and massive 1" composite door. In

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### Continued from page 16



addition, bolt detent, three-way bolt work and five active bolts, are standard on models 1812 and larger. The newly designed interior allows for positioning of carpeted shelves in several locations, giving the customer complete control of spacing.

Gardall's two-hour series continues our over fifty-year history of offering premium quality safes, backed by the best customer service in the safe industry.

### The Wafer Popper by Gator Tool Co.

My job was to rekey a wafer tumbler lock; I grabbed my small screwdriver, lightweight hammer and proceeded to tap wafers out. The hammer slips, screwdriver goes in too deep and I just ruined the very lock that I needed to rekey.



What if you could click, click, click those wafers right out of the lock. You can, Gator Tools Company has just the tool for you. The 'Wafer Popper' is a well-made, quality hand tool with cushion grips, a torsion spring for single-handed use and nickel plated for lasting durability.

### **HES® 1006 Electric Strike**

The model 1006 is the next generation of electric strikes, setting a new standard with 2 million cycles of operation – double the cycle life of the 1003 and any of its strongest competitors! Tamper resistance is also an exciting new feature. Its sophisticated, patent-pending dual interlocking plunger design makes it the most tamper-resistant electric strike on the market.



Factory tested to exceed 3,000 lbs. of static strength; the 1006 is undoubtedly the strongest electric strike available:

- Heavy duty, all stainless steel construction
- UL Listed for Fire category 10C (3 hr., A labeled)
- Dual voltage 12/24 VDC
- 26 Face plate options
- Fail Secure

### High Tech Master Super Set

The High Tech Tools Locksmith Master Super Set is a truly complete



car opening system. It incorporates 1,200 pages of car opening photos and diagrams, information manual, air bag manual, 45 tools, air jack air wedge, Ultra Jack tool, one piece long reach tool, a High Tech Wedgee, training video, and more.

### **HPC Blitz™**

HPC's new Blitz™ Tubular Key Adapter Kit is the most economical answer to code cutting for your tubular keys. This new adapter allows you to convert your Blitz™machine into a tubular key cutter. It is factory preset to cut standard 7-pin tubular keys by code, eliminating any guesswork. The Blitz' Tubular Key Adapter fits in the Blitz' standard "A" Jaw making conversion quick and easy.



The kit comes with an Adapter, Carbide Slotter Cutter, a Tubular Key Code Card, and an Allen wrench. Plus, with the included Tubular Key Decoder, you can quickly decode existing tubular keys and make new factory originals by code. Fast, easy, accurate and economical, a valuable addition to your Blitz™ Code Machine.

### Jensen Multi-Nut Pliers

Euro Tool's latest innovation is the Multi-Nut Pliers. Made of stainless steel with cushion PVC grips, these pliers may be the handiest tools around. Great for home or professional use for mechanics, repairmen, electricians and even hobbyists.

The Multi-Nut Pliers can tighten smaller nuts and bolts. It holds hard-



Continued on page 24

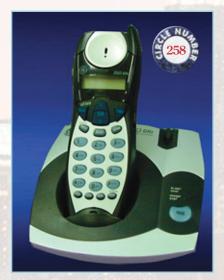
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tightening bolts – when fingers just won't do the trick. It has V-shaped jaws on the sides and end, to handle any situation. Because it's a pliers, it is instantly ready to use with one hand, no adjustment necessary. You won't have to fumble around looking for the right size wrench – just grab the Multi-Nut-Pliers and go to work. The long jaws reach into difficult-to-access places.

This pliers is not meant to replace all wrenches, but as a companion item it is invaluable for holding larger bolts and can torque down smaller ones.

### Jeron Spectrum® Intercom System

Jeron Electronic Systems has a Caller ID (CID) cordless telephone interface for the Spectrum Digital Duplex Intercom, allowing staff the flexibility of managing calls from a portable intercom station anywhere within the facility.



Spectrum CID interface uses a standard cordless CID telephone to enable mobile duplex voice communication. When the CID telephone receives a call, the phone's LCD displays the caller's extension number and directory name. Staff may place calls on hold, transfer, or set-up conference calls, as well as initiate a P.A. Page, All Call or access a PBX line. Multiple CID telephone interfaces may be connected to the Spectrum Central Exchange.

For instant, high-speed connections and clear, crisp voice quality, the Spectrum Digital Duplex Intercom is the optimal choice for commercial, industrial, and institutional facilities. Adding the

CID cordless telephone interface enhances the system by providing users the convenience of mobility.

### Kaba Ilco's Universal Combination Cylinders

The 1599 Universal Combination Cylinders by Ilco takes flexibility to the max! A tailpiece assortment is included standard with every 1599 cylinder and enables this knob/converta cylinder to be used as a key in knob, key in lever, single deadbolt or double deadbolt cylinder. The screw-on cap plug/tailpiece retainer insures ease of tailpiece installation and durability.



The versatile 1599 Cylinders are available in over thirty of the most popular keyways and fit many different applications. All 1599 Cylinders are able to withstand up to 70 inch pounds of force. These high quality cylinders are Master Key and Grand Master Key compatible into OEM Systems.

### **Keedex Weldable Gate Boxes**

Keedex has expanded its line of weldable gate boxes. Keedex now has more than ninety different boxes, which are used for mounting locks, electric strikes, exit devices and other hardware on gates. The Keedex boxes are available in both steel and aluminum.



### KeySoft™ MasterkeyPro®

What makes this version so much better than the competition? This allnew version of MasterkeyPro has a new look and feel with all the features you expect from KeySoft. You'll get the tools needed to recreate virtually any existing system, including Interchangeable Cores. You control the Key Bitting Array, Rotation Order, etc. Easy Cross-Keying feature lets you plan and calculate your Cross-Keying jobs quick and easy.



### Lifetime™ Products Lift-A-Load

Lift-A-Load Trailers raise from flat on the ground, up to 52" high, while staying level. Stop at any height for quick, convenient material transfer to docks, trucks, ramps or ground level. It's ideal for moving Fork lifts, Sweepers, Scissor Lifts, Safes and ATM's.



Straight tongue or Gooseneck hitch is available. Capacities from 4,000 lbs., up to 15,000 lbs.

### Lockmasters Aluminum Door Hook Tool

Sometimes you wonder why you didn't think of it earlier!

A simple yet highly effective tool to slide between store front glass doors or pushed through a single swinging store front so that the "C" shaped end of the tool can engage a thumb turn on a deadbolt or latch. Try it with the Air Wedge to create a 1/2" opening.



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The Hook Tool was also designed to work with roll down gates using the same type of locking mechanism.

### Lock Technology Wheel Lock Removal Kit

The LT-4000 Deluxe Hubcap and Wheel Lock Removal Kit from Lock Technology now includes the LT-4200A dual sided twist socket lug-nut remover. The LT-4000 also safely removes and replaces GM, Ford and Chrysler wire wheel hubcap locks on most 1978 and up vehicles. The tool also removes factory and most aftermarket Mag Wheel locking nut locks.



The kit includes instructions and is packaged in a custom carrying case. The kit is one of dozens of automotive specialty tools available from Lock Technology, ranging from pick sets to lockout kits, inflatable wedges, flexible lights and more.

### **Lund's New Key Cabinet**

A new Lund Key Cabinet has a locking inner compartment and a locking exterior door as well. Designed to safeguard keys to private records, valuable papers, medical offices, engineering designs, etc. It leaves the keys in the outer compartment accessible.

The locks are keyed differently. The locking inner compartment has 50 hooks. The hinged panel has 100



hooks. The cabinet is made of 18-gauge steel, with gray baked-on enamel finish. The model shown is 17-1/2" wide x 25" high x 2-3/4" deep. Other sizes available.

Lund offers more than 70 styles of key cabinets and panels, all complete with systems for controlling keys. Capacities from 10 hooks up to 3312 hooks.

### MARKS USA I-Que

Marks USA introduces the i-Que stand-alone access control system with its patented "Survivor" cylindrical lockset. The i-Que is easy to install,

Continued on page 28



# GM Sidebar Lock Decoder System

The National Locksmith & Gift Sidebar pecodes the GM 6 cut sidebar Works on 148 Model and Year cars!

By Thomas Thill

Tom Thill, the author of a new book, has invented an amazing new way to make keys for six cut GM Sidebar Locks.

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### Continued from page 25

has modular design for future upgrades and is capable of expanding the available audit trail and user memory on-the-door. This unique 16 position keypad, all weather, UL listed, grade one construction unit is backed by a lifetime mechanical and electronics warranty making it an excellent choice for your access control systems.

### **Multi-Lock Security Bar**

The original swing-open security bar that incorporates a lock point at every file drawer has been re-tooled based upon customers input to become even more user friendly. Multi-Lock continues to be the most convenient way to ensure the security of your documents, while meeting every security requirement of the D.O.D.'s Industrial Security Manual for safeguarding classified documents.



Mutual Safe Co. High Security Safe

Mutual Safe Company Inc., is proud to introduce the newest product in their arsenal, the TL-30 x



6. This high security safe surpasses all the others in its category.

The TL30 x 6 is a rare safe that passes a six sided attack and is U.L. rated. This remarkable safe is ideal for jewelry stores, banks and other businesses that store valuable merchandise.

### The Patriot Travel Guard

The Patriot Travel Guard is designed to be the world's only portable double bolt security lock. Take it with you on the road and take it back home. The Patriot Travel Guard can be installed for longer durations with the included strike plate.



Be safe at home or away, at work or play, Patriot protects you all night and day. The Patriot Travel Guard, it goes where you go.

### Perma-Vault's In Room Safe

Perma-Vault Safe Co., which has been serving the security industry since 1978, introduces an In-Room Safe to secure student property, including laptop computers, palm pilots, CD players, cell phones, and personal property from theft and unauthorized borrowing. Safe styles



include pedestal floor mount, floor mount, closet shelf mount or mount to in-room module furniture.

Many lock options including removable core locks that can generate revenue are available. Other products include building access control boxes. Financing options include institutional leasing. Custom design and fabrication available.

### PRO-LOK's® Key Locking Gun Lock

Simple to use Gun Lock. The key can only be removed in the locked position for safety and peace of mind. If the key can be removed the user knows that the lock cylinder is turned to the fully locked position and is secure. Because trigger guards vary in size from model to model, the steel locking post on this Gun Lock can be adjusted up and down to accommodate different thicknesses of trigger guards. This lock also comes with steel pins to insert in the face of the lock to customize it to your gun.



This lock has passed the following safety testing requirements for the State of California: Pry Test, Pull Test, Saw Test, Pick Test, Drop Test, Cycle Test, Manipulation Test, Shock Test, Impact Test, Torque Test, Force Test, Tensile Test. This Gun Lock comes in an attractive clamshell package for retail display and includes an 18" accidental discharge cable. This cable provides and extra layer of deterrence when used in conjunction with the Gun Lock.

### BigEasy "GLO" Kit from Steck

Steck's BigEasy "GLO" Kit is the safest and easiest Lockout Kit for all cars and light trucks. Simply insert the inflatable EasyWedge at the upper rear corner of the door and reach in with the BigEasy Tool to

Continued on page 30

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### Continued from page 28



actuate the interior lock button, slide or handle to unlock the door.

The "GLO's" high visibility is easy to see through tinted glass and in low light conditions. A Lock Knob Lifter Tool is included for those vertical buttons on the window frame.

### STI's New Keypad Protector

In response to customer requests, Safety Technology International, Inc., is announcing another addition to its rapidly growing family of protective covers.



As a security measure, the Widebody Keypad Protector Model STI 6560 now features a strong lock and key assembly. This highly versatile cover helps prevent vandalism and theft of larger keypads, access controls and similar devices. It also increases the life and reliability of protected devices by shielding them from dirt, dust and grime as well as severe environments.

With a gasket, it can be used to keep water out in wet locations and hose-down areas. Molded of thick polycarbonate material, it is backed by a lifetime guarantee in normal use.

### **Secura Key Access Control**

Compact (1-5/8" x 3-5/8") RK-65K stand-alone proximity access control for 65,000 users. Program with a simple deck of cards. Solid-state relay and REX input – even a Wiegand output for future



expansion. Patented Dynascan® allows mounting right on metal. Reads proximity cards or key ring tags up to 6" away. It's very economical.

### SDC's Power Supplies with Dual Voltage Output

With the SDC 600 Series access hardware power supply output set at 24VDC for 24VDC locking devices and components, the addition of the 12VR provides a separate 12VDC 500mA output for 12VDC Access Controllers and readers or other 12VDC devices. One 12VR regulator module is available with 1.5 amps. SDC powers supplies and two regulator modules are available with 4 Amp power supplies, eliminating the need for separate power supplies for locks and access controls.



The addition of batteries provides battery backup for the complete system, and a fire emergency release input are standard for failsafe locking systems and is listed under UL categories Access Control Systems Units and General Purpose Power Supplies.

### The Desktop Dispatcher

The Desktop Distpatcher makes a locksmith's service department more efficient and productive through a windows-based solution for creating, tracking, sorting and printing service calls. The program works for any size shop, so a full time dispatcher is not required.

The newest version features free maps to locate customers and the ability to e-mail calls to cell phones and pagers. The program shows your customer's service history on screen, even as a new call is being entered, stores notes and photographs of your customer's equipment, and even reminds you of appointments. It can also include modules that automatically track your inventory and create invoices.

### Trine's New Electric Strike

The Trine 3478 electric strike joins the new 3000 series, which includes the smallest electric strike in the world. It offers a number of impressive features, such as an overall mechanism dimension of only 1-11/16" x 1-1/16" x 1", making it ideal for 4-7/8" frame preparation in masonry filled frames, as well as narrow stile aluminum frames. The minimal 1" backset permits installation without removing most dust boxes.



A unique face plate utilizes a full lip extension, which wraps around the edge of the door frame and acts as a built-in trim plate. Additionally, the 3478 have 1200 lbs. holding force, meets 5000,000 life cycles and is available in a variety of finishes.

### CyberKey Validator from Videx

CyberKey Validator provides key control in applications with high

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personnel turnover. Users receive their access privileges each day at the exterior of a facility by inserting their key into the Validator station. With the ability to authorize keys on an as-needed basis, Validator eliminates problems associated with lost keys and unauthorized entry. The system eliminates key duplication and wrongful entry by someone using a key outside of an assigned work schedule.

### **RCI Launches New Keypad**

RCI has responded to market demand for more functionality in a stand-alone keypad with the launch of its new 9325i and 9325e keypads. These new models will be available to security professionals across the United States, Canada and Latin America this spring.

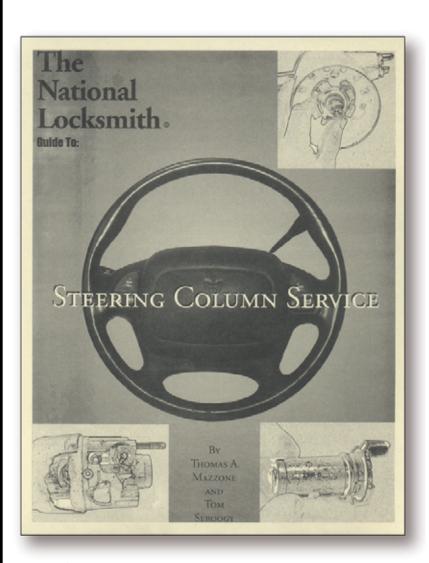
Designed for up to 120 users, with 4 to 8 digit codes, the RCI 9325 keypad is a practical choice for industrial, residential, commercial, institutional and healthcare facilities. It's attractive, surface mount design allows for easy installation.



Programming can de done directly from the keypad. And, illuminated buttons make it easier to use in all lighting conditions.

To ensure safe storage of data in the event of a power failure, the keypad also features EEPROM memory. Programmable lockout and time delay (1-90 seconds) are also available, and Silent Mode can be activated when required.

# GM Steering Column Course



Comes complete with take-home test so you can become certified on GM steering column service!

Authoritative training on every domestic GM column from 1967 to 1995.

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#GM - 2

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Since the last article we've written for *The National Locksmith*, the van and truck equipment

industry has seen amazing growth and maturity. The days of do-it-yourself vehicle upfitting are basically history, with the availability of easv equipment manufactured specifically for your vehicle. Even the vehicle manufacturers have gotten involved in equipment offerings over the last several years. This initially made vehicle upfitters like Commercial Van Interiors a little nervous and uneasy.

But, over the years, everyone has benefited from their involvement—especially you, the customer!

For the industry, the involvement and marketing support of the vehicle manufacturers helped increase customer awareness and acceptance. Once the equipment programs caught on, the industry experienced a kind of explosive growth that would have taken years to achieve on its own. At the same time, we became even better as the entire industry had to quickly rise to the new levels of production, dealer support and customer service of this new era.

For the customer, he or she received complete equipment package arrangements at no charge (or at a minimal amount for some upgrade options). For many, this was their first exposure to the modular equipment concept. Many of these people were in disbelief when they were told that this equipment came

with the vehicle at no charge— "surely there had to be a catch somewhere"...



2003 Chevy Express. Available as the Chevy Express Access and GMC Savana Pro.

And for the vehicle manufacturers, these programs have been amazingly successful in helping achieve record sales of commercial vans and trucks.

And it even gets better...

### Shopping For That New Vehicle:

Although we're all very concerned about today's economy, there's never been a better time to look into a new vehicle! In addition to the nocharge equipment offerings, most vehicle manufacturers are also offering a variety of customer incentives that range from 'customer cash' off the price of the vehicle, low interest financing, lease renewal incentives, alternative upfitting allowances—and on occasion, several of these incentives

combined together. Here's how it works:

Customer Cash vs. Low Interest Financing: Typically, you have to choose between the cash or the financing (although there was a period in the last six months that both were available and 'compatible' with each other for some vehicles). The customer cash incentives are substantial, and 1.9% to 3.9% financing is not uncommon these

days—for a period of time, 0% for 5 years was even available. That's free money and that's incredible! Depending on how you purchase or lease your vehicle, you just have to ask what's available at the time and do the numbers to see what's best for you.



GMC Savana. On 2003 models GM is introducing a totally new lifting side panels with a remote control unlock/release system. Contact CVI about work van interiors designed for this new option.

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### Here's a Tip:

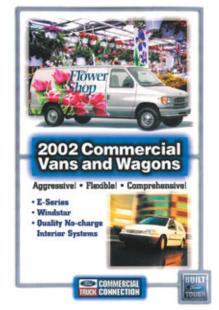
Ask your dealer if they have any previous year models, since they may have more incentives on them.

No-charge equipment packages: General Motors created this concept over 10 years ago with its Tools of the Trade program, which has since become known as the Commercial Customer Choice Program (for Chevrolet) and the Fit For Profit Program (for GMC). Over the years, each vehicle manufacturer has created their own similar equipment offerings. Currently these no-charge incentives range from complete

General Service packages, to Cargo Van Liner packages, to ladder rack/partition/floor mat packages with enhanced, industry specific upgrades at a minimal charge.

Upfitting Allowances: This option is offered for those customers who want highly customized packages or equipment that is not specifically sponsored and promoted within the vehicle manufacturers' programs. The upside of this option is the range and flexibility of equipment the customer can get for their vehicle. The downside is that the allowances are generally not a dollar for dollar value—the current exception to this is Ford's Commercial Connection Program.

which offers a \$1200 allowance for a qualified \$1200 van upfit (although you must spend at least \$1200 to qualify for the allowance, and the maximum allowance is \$1200). Note that Commercial Van Interiors, Adrian Steel and



### 2003 Ford literature.

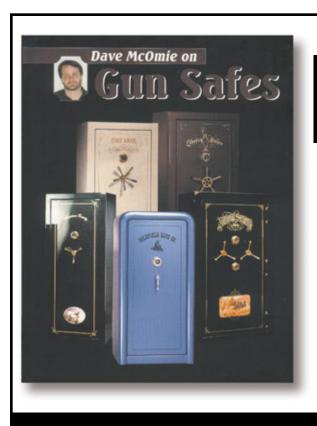
several other manufacturers have created pre-arranged packages that satisfy most of the manufacturers upfit allowance requirements.

### Selecting An Upfitter:

As mentioned earlier, our industry has really 'grown up' over the last few years. If you are in, or near a larger city, you will probably



2003 GM left hand door. GM is offering a new 60/40 driver's side cargo door for option for both 2003 Chevy and GMC full size vans.



# Gun Safes

Need a drill point or relocker drill point on a gun safe?

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see a number of improvements when you visit your local supplier:



Ford is currently offering its Commercial Connection Program with either \$300 cash, \$1200 upfit allowance or a two no charge pre-installed interiors (either a work bin rack system or a EconoCargo liner package).

*Showrooms*—These days, most serious suppliers have a well-stocked showroom, so you can see equipment and package arrangements

before you buy it. In many cases, you can actually put together the interior arrangement that fits your needs, on the distributors showroom floor, to get a true sense of what it will look and feel like.

Inventory In Stock— To satisfy the demands of today's market, most suppliers

keep a relatively wide variety of equipment in stock. Other than fitting the work into their production schedule, you shouldn't have to wait anymore.

Experienced & Qualified Installation— As with most industries that mature. this is an area that has been given a lot of attention. For example, as part of a distributor certification program, Adrian Steel Company is initiating an installation-training program for its distributors. These training sessions combine technical guidance in a classroom environment (covering vehicle specifications, fastening methods, inspection procedures, etc.) with hands-on installation training techniques. To qualify as an Adrian preferred installer, the distributor will be required to have at least one employee attend these training sessions. This person will ensure that the installation facility is up-to-date and adhering to the installation procedures and guidelines of Adrian's Engineering Department.

### Selecting the Right Equipment:

Since locksmiths usually spend so much time in their vehicles, this part of the process should be given extra attention. Whenever asked, we recommend some basic planning considerations:

- Take stock of what you really need to carry. Think about simplicity, moderation and organization. Ask yourself if you really need to carry and create space for something you rarely use? This may also keep you from overloading your vehicle beyond the manufacturers Gross Vehicle Weight Rating (GVWR).
- While on this subject, keep heavier inventory and equipment as low as possible to help vehicle handling (with a low center of gravity) and prevent lifting injuries.



See through view showing an interior layout option.

- How much workbench space do you need—although most equipment manufacturers offer prefabricated workbench tops, custom tops that are shaped and fitted to your specifications are relatively easy and inexpensive to make.
- What are your lighting and electrical requirements? Plan this in advance since wiring, batteries, inverters, generators, etc. require space and must be installed to the specifications of both the equipment and the vehicle manufacturer.

As mentioned earlier, there is a wide variety of equipment that is readily available on the market these days to satisfy the needs of most trades and industries. To get the most out of your vehicle, here are a few things to think about when choosing equipment:

• Select drawers that offer flexibility and have positive latches or locks to keep them from sliding open while your driving. Most

manufactures now use drawer glides in their equipment, and some designs allow for flexible drawer configurations (if you want to swap drawer sizes, etc.).

- These days, all equipment should have a powder coat finish that looks good and is very durable. Sprayed finishes are a thing of the past.
- Most shelf units have a 'tapered' back to universally fit most vehicles, eliminate dead space behind the shelving and maximize aisle space in the cargo area.
- Cabinet doors should have a lockable, positive latching system, flush mounted handles to protect the handles and keep the aisle space clear of obstructions.
- Ask if there are any rebates available from the equipment manufacturer. If so, you might be able to use them towards various upgrade packages and cash allowance upfit options.
- And finally, ask about the warranty on all products you are considering—and make sure the supplier will honor these warranties. The leading equipment manufacturers currently offer 3 year/36,000-limited warranties on their products, to match warranty of your new vehicle (another benefit of vehicle manufacturers' involvement).

So, now might be the time to look at that new vehicle you've been thinking about. Although the equipment programs typically run



Distributor/upfitter showrooms are often well-stocked with extensive displays of modular equipment, pre-packaged arrangements and a wide variety of accessories.

through the entire model year, the cash and financing incentives change on a regular basis. Stay in touch with your local dealer—you might just find a deal that you can't refuse.

For more information contact Commercial Van Interiors at 800-759-7477 or www.commercialvan.com.

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# RX300

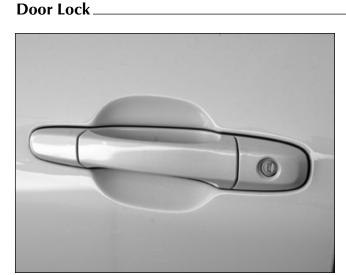
by Michael Hyde & Alan Morgan

PART TWO

Last time we covered the ignition, hatch and glove box locks. This month we conclude the Lexus RX300 servicing procedures by covering the door lock.



1. The 1999 Lexus RX300 has a High Security key with a transponder system. The code series is 40,000 to 50,000. This SUV is also equipped with front seat mounted Side Impact Airbags.



2. The door lock cylinder is part of the outside door handle. The handle must be removed from the door to service the door lock cylinder.



3. To remove the outside door handle you must first remove the inside door panel.



4. There is a Phillips head screw located behind a trim cap on the trim for the inside door release that must be removed.

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5. The rear portion of the trim snaps onto 2 posts, upper and lower, that must be removed.



7. On the rear edge of the panel are 2 plastic fasteners. To remove these fasteners, push into the center of the fastener about a quarter inch. Do not push it all the way through. Once the center is pushed in, the whole fastener can be pulled off the panel.



9. There are also Phillips head screws that must be removed.



6. Use a small screwdriver or other object that will slide in place and lift the trim off the upper post and then do the same to the lower post.



8. On the bottom of the door panel are more fasteners that must be removed.



10. The inside door armrest has a Phillips head screw that must be removed.



11. It is located on the rear underside of the armrest.

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12. The next item to remove is the door controls. Lift it up from the front and work your way to the rear.



13. Here is a look at the front door control trim fastener. If you try and remove the rear section first, the plastic lever will snap off and break.



14. You must disconnect the electronics and then completely remove the door control unit.



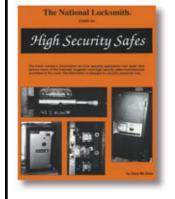
15. Under the rear section of the door control unit housing is a Phillips head screw that must be removed.



16. On the bottom of the door panel is the courtesy light.

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# High Security Safes Volumes 1 & 2





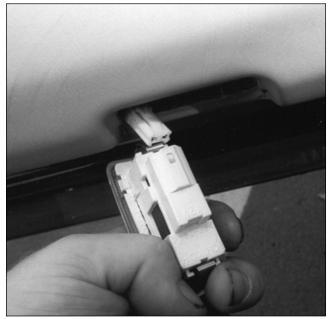
Learn to open High Security Safes now!

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17. Disconnect the courtesy light from the door.



19. The liner is actually there for a reason and not just to annoy us and get in our way. Take care and gently pull the liner out the way without ripping it.



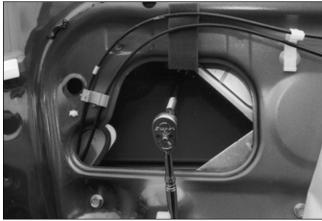
21. On the edge of the door is a plastic access plug.44 • Visit www.TheNationalLocksmith.com



18. Once you have removed the door panel, you will see the plastic door liner.



20. Remove the plug and then you can get a socket wrench in there to unscrew the 10mm bolt holding the rear section of the handle.



22. Next, remove the 10mm bolt that holds in the front section of the handle, through the opening in the door nook.

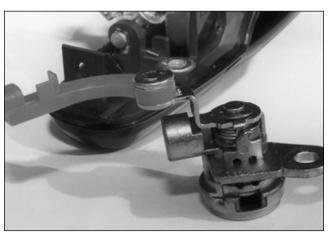
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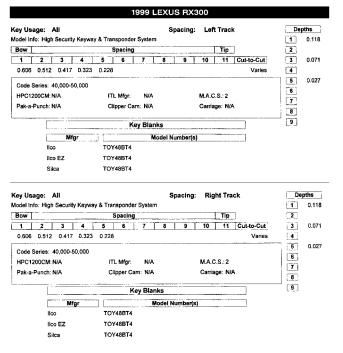
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23. Disconnect the linkage rods and tilt the handle out and remove.

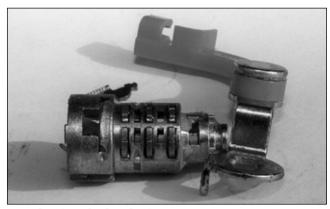


25. The lock cylinder removed from the handle. There is a code stamped on the lock, but the codes are not published.

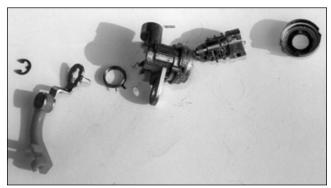




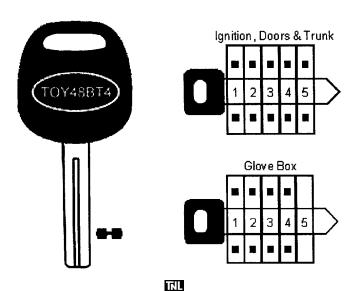
24. A 10mm bolt holds in the door lock cylinder.



26. The door lock cylinder comes apart pretty easy. The face cap is reusable. Remove the tailpiece and the cylinder plug will slide right out the front.



27. The door lock cylinder contains 10 tumblers, 5 are left and 5 are right. There are only 3 depths and all tumblers are split tumblers. The door lock contains all the tumblers needed for a complete key.



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# SWINGING PROFITS From HINGE INSTALLATIONS



by Jake Jakubuwski

If you've read any of my past articles, you know that one of the things that I advocate is total door service. You know, if you repair a lock, align a strike or adjust a closer, why not determine what

might have caused the problem to begin with—and fix that while you're on the job site.

Of course, I know that this type of work is not for everyone. However, when you see how simple this is and figure out how many shekels a job like this can generate, you might consider doing total door service. Not everyday, maybe not on every job, but on days when things are a little on the slow side and it's been a day or two since you opened your last car, or whatever, a job like this could be a welcome sight.

One of my regular customers called me the other day and told me that the lock I had rekeyed a couple of months ago had quit working. The area manager asked me to come out to the store as quickly as possible since they couldn't lock the door. So, off I went.

The lock in question turned out to be a Jackson 10 Series Exit Device (JA1095-RHR-C-3-313) with a I/C core rim cylinder on the outside of the door. When I tried the manager's key, I could feel the actuator slip without retracting or extending the latch bolt. It turned out that the nylon gear that

the tailpiece on the rim cylinder turned had a cracked post, which forced the gear out of alignment. The damage was extensive enough that I began to look for causes. *Photograph 1*, shows the temporary repair I made to the actuator.

That repair was accomplished by drilling out the remainder of the broken post, enlarging the "hole" and then using a shoulderd ?-20 screw, washer and Nyloc nut to hold everything together. The arrow is pointing to the spot where I epoxied the shouldered bolt in place. (See photograph 2.)

I knew that it could not have been the rekey that caused the problem, because the rim cylinder was an interchangeable core housing and the only thing my son did when he rekeyed it was to swap out the cores.

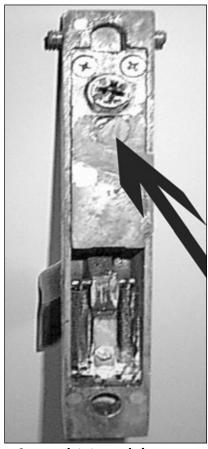
Looking at the strike, I noticed some odd marks. Looking at the latch side of the device, I could see corresponding marks on the device and latch. Suspecting a sagging, or worn, pivot hinge, I was closing the door when I noticed that the latch side stile (the vertical aluminum tube) had a bow in it that forced the vertical plane of the door to the outside. The bow had about a one-and-a-quarter inch radius in it. In addition, the stile



1. Temporary repair to the actuator.

had a sort of hook, or twist, in it that forced it to rub against the latch side jamb as it closed. (See Photograph 3). I asked the store manager if they had to force the door shut when they closed and locked it. Yep!

Forcing the door closed and then forcing the cylinder to turn would easily account for the damage to the actuator post, and the fact that the

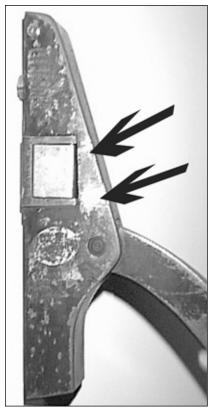


2. Arrow points to epoxied area holding bolt showing deep rub marks.

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latch could no longer be operated with the key. However, I knew there had to be a reason the stile was forced out of alignment.

I stepped outside, closed the door to verify the misalignment and found the cause of the problem. About 10"



3. Showing deep rub marks on latch area.



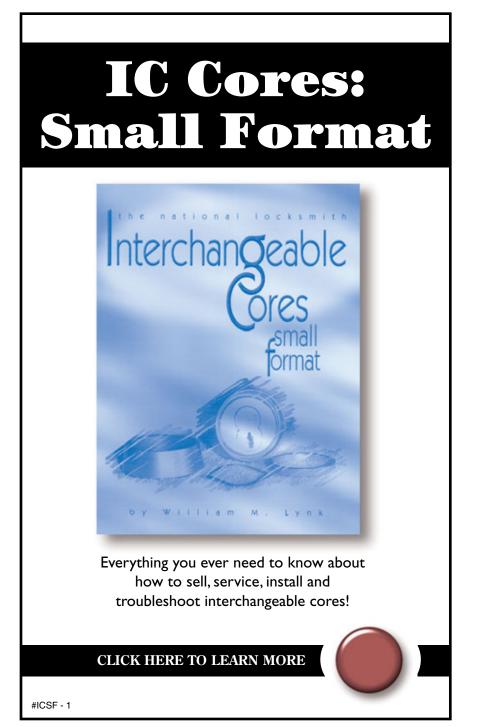
4. Pressure points on door.

up from the bottom of the door, on the hinge side; there was a common 4-1/2" butt hinge in bright brass. (*See photograph 4.*)

It seems that somewhere along the line, the bottom pivot gave out on the door and caused the door to drop away from the top pivot. The store manager, trying to solve an immediate problem and save some money, went down to Lowe's and bought the hinge, eight 1/4"-20x4" bolts, washers and nuts and "repaired" the door himself.

Although the manager's intentions were good, he didn't

realize that you can't use a mortise hinge to fix a door that has pivot hinges on it, especially if you don't remove the pivots first. If you look at the butt hinge in photograph 4, you can see that it is placed flat against the jamb and the hinge-side stile of the door and bolted tight. That caused the door to bow because the top pivot was offset and caused the door to bind. When the door was opened, the bind became worse (consequently the "bow" in the door I mentioned earlier) and that bind forced the panic device to rub the latch-side jamb and made it



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necessary to force the door closed when locking up.

In turn, undue strain was put on the panic device (because the bow in the stile of the door was most pronounced where the device mounted to the door) which in turn made the cylinder harder and harder to turn. Finally, the strain on the device caused the post that the actuator was on to crack and move out of alignment.

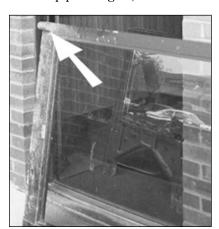
Interestingly, if the door had glass in it rather than Plexiglas, the glass would have shattered because of the severity of the door bind.

The first thing I did was to call the area manager and give him the news. I told him that it would be necessary to take the door down, remove the pivots (and bright brass hinge), install a Select SL-57 Continuous Hinge, a new Jackson 1095, and replace the closer (which was leaking). Then, I had to wait for him to come over to the store so I could show him the problems.

I told the Area Manager how much the "fix" would cost. He agreed and I ordered the stuff I needed. I left and came back a couple of days later with my son Kelly to resolve the problem.

Once the mortise hinge shown in photograph 4 was removed from the door, it was a simple matter to take the door down since the bottom pivot had long since broken. (See photograph 5.) Both the bottom pivot, and the top pivot, are held in place by either two bolts, which go through the face of the stile and can be accessed from the bottom and top of the stile, or two nuts on studs. The appropriate sized box end wrench can be used to remove those bolts—or nuts, as the case may be.

*Photograph 6*, shows the removal of the top pivot. Again, the bolts that



5. Bottom pivot.

secure that pivot are easily accessed from the top end of the stile.

The next step is cutting the Select hinge to size. This can easily be done with a hacksaw. Just measure the door, deduct about a 1/2" from the measurement, mark the hinge accordingly (while it's still folded like it was in the box) and cut the excess off. Next remove the two security cover plates (the inside one, next to the glass has three small Allen screws that hold it to the hinge) and set them aside.

I use double-faced carpet tape to hold the hinge in position on the edge of the door until a couple of self-drilling screws can be used to secure the position of the hinge on the door. *Photograph 7*, shows Kelly using a drill to set the screws that secure the hinge.

In photograph 8, Kelly is through drilling the hinge-side stile, using the Select SL-57 as a template. These holes are drilled to 3/8" to accept sex bolts. After the holes are drilled we simply insert a sex bolt in the hole, and insert a "shouldered" 1/4-20 flat-head Philips screw from the opposite side and tighten them up with the DeWalt. Select supplies all the bolts, screws and such that you need for the average installation. However, I deviate on aluminum stile doors and use 10-16x3/4" Pan Head, self-drilling screws to secure the hinge to the frame.

In photograph 9, you can see the blind ends of the sex bolts securing the hinge to the door. Notice that the arrow is pointing to an area that does not have a sex bolt in it. On the



6. Removing top pivot.

opposite (inside) stile the Jackson device is mounted, and using a sex bolt in that area would interfere with the mounting of the Jackson 1096. I simply use a 10-16 pan head self-drilling screw just below the hole (it's countersunk) to secure the hinge in that area. Although it's not shown until later, the security cover for the door leaf of the hinge is slid into place, at this point and secured with the Alan screws provided.

[NOTE: The prepped holes that are already in the hinge, on the jamb side are counter sunk. Never use a pan head screw, with its flat shoulder in a counter sunken prep, as it will allow the hinge to move under stress. As can be seen later, I use the pan heads in between the prepped countersinks. That way, the pan heads are drawn up tight to the flat surface of the hinge and the chances of them working loose is minimal.]

With the hinge firmly secured to the door, it's time to place the door back in the opening and attach the hinge to the frame. In *photograph 10*, the arrow points to some cardboard between the threshold and the bottom rail of the door. Those two pieces of cardboard are my "shims" for this particular job. In this case, two pieces of cardboard (cut from the packing carton of the hinge) were sufficient to raise the door to the exact level for proper operation.

### Continued on page 54



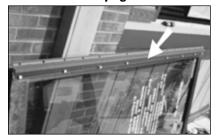
7. Securing hinge with self-drilling screws.



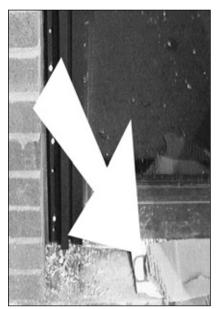
8. Drilling through holes for sex bolts.

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### Continued from page 52



9. Hinge attached to door.



10. Using cardboard to shim door.

When necessary, I also use wood, plastic and steel wedges or a couple of Stanley Wonder Bars to raise and hold the door in position. It all depends on the size and weight of the door. In this case with aluminum stiles and rails and a Plexiglas sheet rather than tempered glass; the door was light and easy to handle.

Photograph 11, shows my son drilling pilot holes for the self-drilling screws. What? Yeah, I know it sounds sort of redundant, but the photograph does show Kelly drilling 1/8" pilot holes in the jamb side of the hinge and frame. The reason is simple. The pilot hole accomplishes two goals. One, it keeps the screw from "walking" when trying to drill with it and two, it keeps the jamb leaf of the hinge from lifting once the screw penetrates the leaf, but has not yet cut through the aluminum jamb.

After you get a couple of screws in the leaf to hold it steady, you can drive the screws through both the leaf and the jamb with relative ease. Whenever I deal with a steel or wood door and a steel frame, I make it a practice to drill pilot holes.



11. Drilling pilot holes.



12. Driving self-drilling screws.

Once the pilot holes have been drilled (in this case, Kelly chose to drill all the screw locations) it's easy enough to drive the pan heads and securely attach the hinge leaf to the frame, as seen in *Photograph 12*.

As a rule, I will only put about four screws, evenly spaced along the leaf of the hinge and then check the door for ease of operation and alignment. That way, if there are any problems, they can be corrected before I finish screwing the jambside leaf down. *Photograph 13*, shows the pan heads equally spaced down the length of the hinge.

The hinge is now ready for the security cover. In *photograph 14*, Kelly is using a wooden wedge and a hammer to seat the security cover. This cover is a clip-on type cover and needs to be driven onto the hinge with a little bit of force. Of course, if you hit it directly with a hammer, it will distort, damage and deface the cover.

Photograph 15, shows the completed hinge with both security covers on them. Is that a third cover in the center of the hinge? Yep. That one never comes off the hinge and it covers the gears and bearings.

With the door straightened, rehinged and rehung, it's now time to get around to installing the new hardware. *Photograph 16*, shows the



13. Showing pan head screws.

latch mechanism of the Jackson 1095 after being attached to the door. Since I was using same brand hardware, the door preps and post screws that hold the device to the door were already in place. All that was necessary here was to put the Jackson on the door. By the way, TACO markets a device that will also fit the Jackson 1095 footprint and keep in mind that these devices are handed. This one was a RHRB and need to be ordered that way.

After installing the return mechanism on the other side of the door, Kelly is attaching the push bar to the device with the screws provided. (See photograph 17.)

In photograph 18, he is attaching the bar to the latch end of the device, which finishes up the Jackson installation. When you're replacing brand-for-brand, or using a brand with an identical footprint, the installation is greatly simplified.

The last thing to do, other than check the operation of the key in the outside cylinder that operated the latch on the 1095, was to install the new closer. *Photograph 19*, shows the closer in place and adjusted for proper closing and latch speed.

*Photograph 20*, shows the finished door. It looks much better without the brass hinge on it, don't you

Continued on page 56

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### Continued from page 54

think? Better than the aesthetics, it works smoothly, as it should. The best thing, in my opinion, about installing a continuous hinge on a storefront door is: Even on the highest traffic doors, these hinges will give years and years of trouble free service. Since they don't usually "sag", bend or bind, the other hardware on the door is less prone



14. Seating jamb side security cover.

to problems caused by misalignment and hinge failure. I'd guess that Kelly and I have installed sixty or seventy of these hinges over the last few years (on narrow stile glass doors) and have yet to have a call back due to failure!

The Select SL-57, in a Duronodic finish cost me \$97. The Jackson 1059 cost right at \$100 and the closer was \$64. I probably had four of five bucks worth of screws and about 2-1/4 man-hours in the job. Factoring in



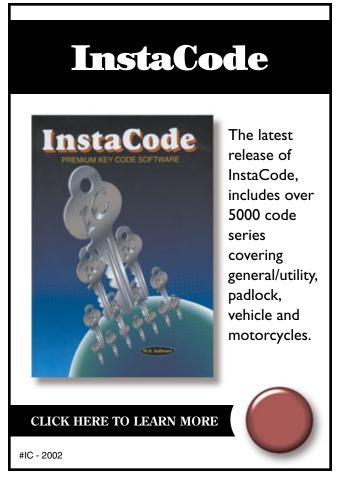
15. Security cover in place.

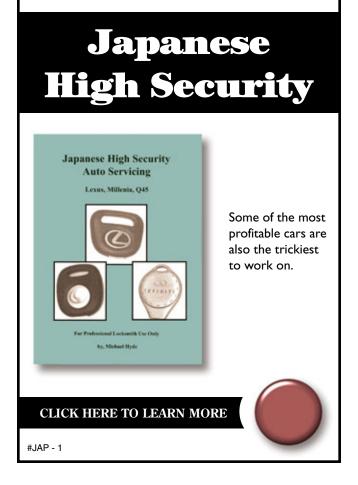
gas, and labor, etc. I probably had a little over \$370 in costs in the job. By the time I multiply my material and labor costs, add my service call fee and any "incidentals", a job like this becomes a very, very profitable job.

To see how much you might gross on a total door service job like this, why don't you take my "costs",



16. Installing latch portion of panic





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17. Attaching push bar to hinge side of door.



18. Finishing up the panic device.



19. Install and attach new closer.

add in your own markups on labor, materials, travel time and your service call fee and see what you come up with. I will also tell you this: Knowing the "average" fee charged by locksmiths in my area for opening cars, I would have had to open 10-15 cars in the hour-and-fifteen-minutes it took Kelly and I to do this job and



20. Finished door.

the hour driving time we spent getting there and back.

Additionally, we would have had to pay for our dinner, which was "comped" to us by the manager of the restaurant where we did the work!

So, the next time you're on a rekey, or decide to file a strike because the door won't latch, take a look at the entire door, determine what is really causing the problem and tell the customer you can fix it. It's the best way I've ever found of shaking the shekel tree!

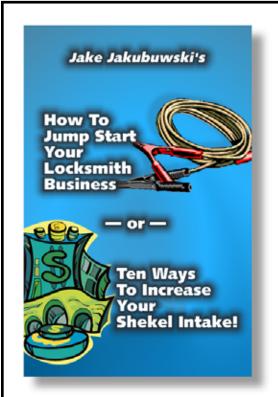
To find a Select Hinge dealer near you, call: (800) 423-1174.

Accredited Lock & Supply carries a complete line of Jackson Products and can be contacted at: (800) 652-2835.

Trans-Atlantic Co. has a number of closers and exit devices that will retrofit more conventional footprints. Their toll-free number is: (800) 523-9956.

And, as always, check with your favorite distributor for any of the products I mentioned in this article.

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# AUDI A4/S4, A6/S6 AND VW PASSAT

The Audi brand is one of the fastest growing luxury brands in North America and around the world. Although Audi shares a relationship with VW and Porsche, the Audi Corporation can trace its roots back to 1899. The four interlocking circles of the Audi logo represent the merger in 1932 of four of the leading car manufacturers in Europe: Audi, DKW, Horch and Wanderer. In 1958, the company was taken over by Daimler-Benz, and then in 1965 the company became a wholly owned subsidiary of Volkswagen.

The Audi A4 (see photograph 1) and the VW Passat (see photograph 2) share the same platform and many interior and exterior features. For that reason, the unlocking methods that I will describe in this article will unlock both the A4 and the Passat. The only real difference in unlocking the two vehicles is that the Passat will not necessarily be equipped with an alarm, and the placement of the power door lock control is different.

The Audi A6 is essentially a bigger and more luxurious version of the A4. (See photograph 3.) The S4 and the S6 are simply sporty versions of the A4 and A6. The methods for unlocking the doors on the A4, S4, A6 and S6 are all the same. In addition, all of these cars are equipped with the relatively new high-security lock system that was introduced in 1998 on the "New Beetle." These locks can be picked with either of the high-security pick sets that are on the market today, but entry to the vehicles can be



1. 2002 Audi A4.

2. 2002 Volkswagen
Passat



3. 2002 Audi A6.



4. The interior of the door showing the bicycle-style cable.

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5. The TT-1015 tool is inserted near the front of the door.

### **Quick Reference Guide**

### Vehicle:

Audi A4, S4, A6, S6 and Volkswagen Passat

### Direction Of Turn:

Counter-Clockwise

**Tool:** TT-1015

### Lock System:

Audi / VW 2-Track High-Security System (same as VW and Porsche)

### Security System:

Transponder system standard equipment

### Code Series:

00001 - 05000

### Key Blank:

llco HU66T6, Jet HU66VWNPHT, Silca HU66AT2

### Bitting:

Ignition Doors and Trunk 1 – 8, Glove Box 6 – 8 Compartment Lock 7-10



6. A plastic card is used to prevent rolling the lower layers of the weather-stripping.



7. Always remove the wedges before pulling the tool up.



8. Use the looped end of the tool to pull the door handle.before pulling the tool up.

gained relatively easily with the Tech-Train 1015 "Under Window" tool. Attempting to use a car-opening tool that goes into the interior of the door is futile, because of the bicyclestyle cables that are used inside the door in place of traditional linkage rods. (See photograph 4).

The TT-1015 "Under-Window Tool" is used to manipulate the inside door handle from outside the vehicle. Like almost all vehicles of European origin, the door can be unlocked by pulling the inside door handle. This will only work on the front doors because the child-safety mechanism on the rear door

prevents the handle from overriding the lock system.

Unlocking the Audi A4, A6 or a Passat that is equipped with a factory installed alarm system with the TT-1015 tool requires a different procedure than on most vehicles. The tip of the tool must be

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9. On the Passat, pulling the handle will raise the vertical lock button.



10. On the Audi vehicles you will have to pull the handle twice to unlock the door.

positioned behind the inside handle lever so that you can pull the lever out without slipping off. It will be necessary to pull the handle twice in most cases, so proper positioning of the tool is very important.

The first step in unlocking these vehicles is to wedge open the base of the window as far forward as possible on the front door. (See photograph 5). Because of the multi-layer weatherstripping that is used on the base of the window, you will have to use extra caution while wedging open a gap in the door and while inserting the tool. To protect the weather-stripping, I begin by inserting a small plastic card between the glass and the weatherstripping. I then insert the wedge between the plastic card and the glass, pulling the card out after the tip of the wedge is below the level of the deepest lip of the weather-stripping.

If you do not take steps to protect the lower layer of weather-stripping, it will roll under your wedge. This will restrict the movement of your tool and possibly damage the weather-stripping. You will also have to use the same technique as you insert the tool into the door to prevent the tool from rolling the weather-stripping. (See photograph 6.)

Once you have a suitable gap into the door cavity, insert the tool into the door with the tip of the tool pointed toward the front of the vehicle. When the upper bend of the tool is below the bottom of the window glass, flex and lift the tool so that the upper bend slides up the inner surface of the window glass. The exclusive flattened top edge of the TT-1015 tool helps to guide the tool into the proper position to slide past the weather-stripping. The tool can also be lubricated with a silicone lubricant or dishwashing liquid to help with the insertion.

As soon as you are sure that the tool is in position to be pulled up on the inside of the door, stop and remove the wedges from the door. It is very important to remove the wedges prior to pulling the tool up on the inside of the door. Failure to remove the wedges can result in breaking the window glass. Pull the tool up until the tip of the tool pops free of the weather-stripping inside the passenger compartment of the car. Next, manipulate the tip of the tool until you can slip it between the inside edge of the door handle and the trim around the handle. (See photograph 7.)

At this point, you will be ready to actually unlock the door. If the vehicle is a VW Passat that is not equipped with a factory installed alarm system, pulling the handle out (see photograph 8) will raise the vertical lock button located at the rear of the door (See photograph 9). Do not attempt to actually open the door with the tool; this requires that too much force be applied to the tool. If too much force is applied and the tool slips off the handle, the tool could damage the door trim or break the window glass. Once the button has come up, you can open the door by using the outside door handle.

If you are dealing with an Audi or a Passat that is equipped with a

factory installed alarm system, you will have to pull the inside door handle twice. The first pull sets the vehicle up to be unlocked and the second pull actually unlocks the door. One problem with this method is that on Audi vehicles, the power door lock control is located inside the forward portion of the handle trim. If you allow the door handle to come too far back after the first pull, your tool may contact the power door lock control and relock the door. (See photograph 10.) Once again, do not try to actually open the door with your tool. After the second pull on the inside door handle, operating the outside door handle will open the door. In most cases, this method will not even set off the alarm.

Attempting to unlock the car by using the tool to operate the power door lock control may work on some occasions. However, if the vehicle has been locked with the key or the remote, and the alarm system is active, the power door lock control will be disabled.

I do not recommend the use of the Jiffy-Jak Vehicle Entry System or other door wedging tools for the Audi vehicles because of the way the weather-stripping is attached to the inside edge of the door. The weather-stripping consists of a thick spongy pad that is glued directly to the outer lip of the door. Attempting to use a wedging tool may pinch or tear the weather-stripping. The VW Passat, on the other hand, can be unlocked easily with the Jiffy-Jak Vehicle Entry System.



by Sal Dulcamaro, CML

part of Ingersoll Rand, Schlage and Locknetics have worked together on a number of projects. By uniting Schlage's mechanical door

hardware with Locknetics' electronic components, IR has introduced a number of electronic locking devices. Some have come under different labels, but a good number are being introduced as Schlage brand with Locknetics on board. This is somewhat similar to when many computer manufacturers advertise their brand name with "Intel Inside."

For the most part, the electronic brains inside Schlage electronic door hardware products will be made by Locknetics. Many of those Schlage labeled products bear a strong physical resemblance to near identical electronic locks sporting the brand name "Locknetics." To a certain extent, they share a common footprint and overall look. They are also electronic relatives of exit device products under the Von Duprin label. In that category you will find the CM (Computer Managed) series products that have greater user possibilities and audit capability. The Schlage Pro series locks (at a lower cost) have a similar look, but they lack audit and have fewer features and capabilities.

Schlage's newest electronic lock is the MPC Cobra. The abbreviation (MPC) stands for "Manually Programmable Cylindrical" Locking System. It's a close electronic relative to the Pro series locks. Among its differences is an aesthetically more attractive look. (See photograph 1.) Other differences include the lack of a key bypass in the handle and a lower overall cost. Like the Pro, it lacks audit capability. The Cobra's 100-code capacity is larger than many competitors in its category. It uses the Vandlgard' clutching lever available in two handle designs. It comes righthanded from the factory, but is field reversible. The lock is available in five finishes: 626, 605, 612, 613 and 625.

There is a variety of installation options. The lock will install on doors



1. The Schlage's MPC Cobra.

from 1-1/2" to 2" thick, and with an optional shim plate, a door as thin as 1-3/8". A pair of inside/outside cover plates is available to conceal holes from a previously installed lockset. Those plates are only available in satin chrome (626). An exterior gasket comes standard to help seal out the weather from the electronic components inside. Latches are available in both 2-3/4" and 2-3/8" backsets.

### **Installing the Cobra**

Cobra is only available as a cylindrical unit. If you also need mortise and rim devices with the same look, you may want to consider the Pro series instead. Assembling the components of the Cobra was somewhat unusual compared to other Schlage locksets, but surprisingly easy. Like many electronic locksets, the Cobra door prep requires extra holes beyond the standard 2-1/8" cross-bore hole. You will see three extra (smaller) holes just above the standard hole. (See photograph 2.) The center hole is for a mounting post. Its centerline is 3-7/8" above the center of the original cross-bore hole.

This lock mount has two lower holes to the right and left of the hole previously mentioned. Only one of those two holes is required for the wire connecting the outside and inside parts of the lock. If you are looking at

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the outside of the door, the hole should be to the right. From the inside the hole would be to the left. This mount has both holes so it can be used as either a right or left hand door demo. That second hole (for the wire) would be 3-5/8" above the center of the main cross-bore hole. It would also be 7/8" to the right (viewed from outside of door) of a vertical line drawn from the center of that same cross-bore hole. All three of those holes were drilled to 19/32" diameter.

The latch retractor unit is more typically part of the outside assembly in a Schlage cylindrical lockset, but for the Cobra it is part of the inside

assembly. The retractor unit is not yet attached to the inside base plate. (See photograph 3.) Photograph 4, shows the external threads of the retractor unit ready for attachment to the internal threads of the hole in the base plate. The latch retractor unit should be fastened all the way, but not tightly, since it must be backed off to adjust for door thickness. Following is the number of turns it must be backed off for different door thickness settings. The number of turns is given as a range, since the retractor must point one direction or another to mate

with the latch already on the door. They are as follows:

•	
Door Thickness (inches)	# of Turns
1-3/8	0-1
1-1/2	0-1
1-5/8	1-2
1-3/4	2-3
1-7/8	3-4
9	15

The inside base plate assembly is set for 1-3/4" thick on a right handed door. (See photograph 5.) The assembly is ready to attach to the door. (See photograph 6.) The latch retractor portion will insert from the



2. Three extra (smaller) holes just above the standard hole.



3. The retractor unit is not yet attached.

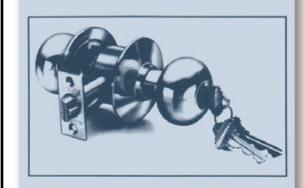


4. The external threads of the retractor unit ready for attachment.

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inside surface of the door and must properly connect to the latch that is already assembled. A metal plate will act to block attempted manipulation of the latch. (See photograph 7.) The latch guard is fastened to the retractor unit. (See photograph 8.) Only the upper screw is actually securing it.

The outside assembly will be attached next. If the handing is not properly set, it can be changed. An Allen head screw is accessible inside the spindle hole that secures the outside lever handle. The spindle is pointing to that hole. (See photograph 9.) After loosening the screw, the handle can be repositioned and secured again with the screw. When changing hand, it is recommended that Loktite® 242 (or equivalent) be used to keep the screw from loosening.

There is no key bypass available in the lever handle, but a bypass small format interchangeable core (SFIC) lock cylinder can be installed into the bottom of the outside assembly. It would only be visible if you looked upward from the floor. If you don't use a bypass I-Core, you must install a plug to cover the opening. Either a plug or I-Core must be installed. Once you account for those things, the spindle can be inserted into the



5. The inside base plate assembly.



6. The assembly is ready to attach.

hole. (See photograph 10.) The dot on the piece surrounding the spindle must point down.

The outside assembly is ready to install. (See photograph 11.) Make sure everything fits into its proper hole. The mounting post on the top of the outside assembly will fit into the top hole, while the wire should go through the hole to the right. The spindle will fit into a matching opening in the latch retractor unit. Three screws will attach the inner assembly to the outer assembly. (See photograph 12.) After the screws are tightened, plug in the wiring harness. (See photograph 13.)

If it is not already attached, insert the matching spindle into the hole in the inside escutcheon. It is assembled in *photograph 14*. Position the escutcheon over the inside base plate assembly and fasten with four security (spanner) screws, one in each corner. Two are visible in photograph 15. All four screws have been tightened. (See photograph 16.) The inside handle should always retract the latch. The clutch is only on the outside.

Photograph 17, shows a door edge view of the completely installed lock. You should watch the action of the latch when testing either the inside or outside handles. There should not be



7. A metal plate will act to block attempted manipulation.



8. The latch guard is fastened.

excessive binding when operating either handle. You will only be able to test the outside lever handle after connecting the wire and installing batteries.

### **Programming the Cobra**

The MPC Cobra can have up to 100 codes. All user codes can be set from 3 to 8 digits in length. Only the programming code must be between 5 and 8 digits long. The Cobra is manually programmable at the keypad. (See photograph 18.) There are only five number keys, even though they are double numbered: 1-2, 3-4, 5-6, 7-8 and 9-0. It is recommended that you maintain records of issued codes as either odd only or even only numbers. The lock will interpret the code 13579 the same as 24680. If you try to mix even and odd numbers in your records, you may not recognize an identical code since it may look different. There is a programming key: the asterisk key (symbol \*). There are also two LED's: one red and one green.

When you first install the lock and its batteries, it will default to certain factory-programmed codes. This is a list of the various functions and their factory default codes. Programming-97531, Normal-13579, Toggle- 135135 and Freeze/Lockout- 9115. The

### Continued on page 68



9. An Allen head screw is accessible inside the spindle hole.



Either a plug or I-Core must be installed.

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### Continued from page 66

following functions have no factory default codes: One Use, Supervised and PassThru. When the locks are put into use, it is always recommended that the factory default codes be changed. With a range from 3 to 8 digits you go from ease of use to greater security. Where and how the lock is used should help determine how many digits to choose. I will explain the programming process after first describing the individual functions.

The "Programming" code will put the Cobra into a programming mode. It does not unlock the lock, even though it can set a code that will. Entering the Programming code followed by the asterisk (\*) key will



11. The outside assembly is ready to install.



Three screws will attach the inner assembly.



13. Plug in the wiring harness.

cause the LEDs to flash several times to alert you that it is in programming mode. If you wait more than 30 seconds between keypad entries, the lock will leave programming mode and you will need to start again. There can only be one Programming code at any one time. It must always be between 5 and 8 digits. All other codes can have between 3 and 8 digits.

Normal codes will unlock the lock for the length of the currently programmed relock time delay. The green LED will flash while the Cobra remains unlocked. When it stops flashing, the lock will relock. Numerous normal codes can be programmed. The only limit is when a total of 100 (of all functions) codes have been programmed. If only



 Insert the matching spindle into the hole in the inside escutcheon.



15. Fasten with four security (spanner) screws.



16. The inside handle should always retract the latch.

normal codes were issued to end users, the Cobra lock would behave as an electronic storeroom function lock.

Toggle codes unlock the Cobra for an indefinite length of time. Entering a toggle code when locked will cause the Cobra to unlock. If unlocked, entering a toggle code will cause it to lock. Any toggle code will lock or unlock the Cobra. The same toggle code is not required to change the condition of the lock. The limit for number of toggle codes is the same as explained for normal codes. If only toggle codes were issued, the Cobra would behave as a classroom function lock. If used on a more limited basis, it could be used to temporarily convert the Cobra to passage function. Free passage would be possible through that doorway until it was switched back and then only people with entry codes could pass. The mode will not change until another toggle code is entered. It could be left in passage mode indefinitely.

Freeze/Lockout codes prevent other codes from working. Only a Pass Thru code will unlock the Cobra, when put into this mode. All other codes will be locked out. Only a Lockout code will put the Cobra into this mode, and only by entering another Lockout code can it be reversed. There is no specific limit to Lockout codes issued, as long as the total of all codes is 100 or less.



17. The completely installed lock.



18. The Cobra is manually programmable at the keypad.

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One Use codes behave like normal codes, but only work one time. After the code is entered and unlocks the Cobra lock, it is automatically deleted. If reprogrammed, the same digit pattern can be reused as a One Use code, but it will again delete after use. More than one One Use code can be programmed into the lock at the same time. As each code is used, it becomes deleted. All one use codes will retain in memory until they are used once, or if they are manually deleted with the code delete function. They are ideal for situations where someone needs occasional access, but should not have access on a regular basis. If the same person needs access again, another One Use code can be given.

Supervised codes require that two different supervised codes be entered (one after another) to unlock the lock. Like the One Use codes, they remain opened the length of time for the relock time delay (like normal codes). It doesn't matter which code is entered first or what other Supervised code it is paired with for opening, but it must be two separate supervised codes. Neither code can open the lock alone. If you wait too long between entering one code to entering the next code, you will need to completely restart the process. Numerous supervised codes can be programmed.

Pass Thru codes work at all times, not just when the Cobra is in Lockout mode. It cannot be temporarily locked out by a specific programming function. Only deleting the code can prevent access

Certain basic steps are used to program codes into the Cobra lock. The "\*" key is used like the <enter> key on a computer keyboard. After pressing the "\*" key, wait for the red and green LEDs to stop flashing before proceeding to the next step. If at any time the red LED stays on while the green LED flashes, an error has occurred. The flashing message will repeat three times. Count the number of flashes and consult the error code chart, as follow:

#### **Error Code Description** Flashes

- 2 Code too long-8 digits max.
- Memory full, must delete some codes
- Can not delete Programming 4 code—use change steps
- 5 Second entry did not match first (Programming Code)

- 6 Invalid entry, start over. (Verify that any codes entered prior to this error do not operate the lock.)
- Code to be deleted does not exist.
- Duplicate code, code already exists.

#### **Programming Steps**

The various programming procedures entered on the keypad will be described (in steps) below.

#### To Add Normal Use Code:

1. Enter Programming Code

- 2. Enter "\*"
- 3. Enter "3"
- 4. Enter "\*"
- 5. Enter New Code
- 6. Enter "\*"
- 7. Enter "\*" [to add another code, repeat from step 5; to End, enter "\*"]

#### To Add Toggle Code:

- 1. Enter Programming Code
- 2. Enter "\*'
- 3. Enter "33"
- 4. Enter "\*"
- 5. Enter "191" 6. Enter "\*"
- 7. Enter New Code
- 8. Enter "\*'

#### **Locksmith Dispatcher** 2000



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9. Enter "\*" [to add another code, repeat from step 7; to End, enter "\*"]

#### To Add Freeze/Lockout Code:

- 1. Enter Programming Code
- 2. Enter "\*"
- 3. Enter "33"
- 4. Enter "\*"
- 5. Enter "115"
- 6. Enter "\*"
- 7. Enter New Code
- 8. Enter "\*"
- 9. Enter "\*" [to add another code, repeat from step 7; to End, enter "\*"]

#### To Add One Time Use Code:

- 1. Enter Programming Code
- 2. Enter "\*"
- 3. Enter "33"
- 4. Enter "\*"
- 5. Enter "113"
- 6. Enter "\*"
- 7. Enter New Code
- 8. Enter "\*"
- 9. Enter "\*" [to add another code, repeat from step 7; to End, enter "\*"]

#### To Add Supervised Code:

- 1. Enter Programming Code
- 2. Enter "\*"
- 3. Enter "33"
- 4. Enter "\*"
- 5. Enter "117"
- 6. Enter "\*"
- 7. Enter New Code
- 8. Enter "\*"
- 9. Enter "\*" [to add another code, repeat from step 7; to End, enter "\*"]

#### To Add Pass Thru Code:

- 1. Enter Programming Code
- 2. Enter "\*"
- 3. Enter "33"
- 4. Enter "\*"
- 5. Enter "119"
- 6. Enter "\*"
- 7. Enter New Code
- 8. Enter "\*"
- 9. Enter "\*" [to add another code, repeat from step 7; to End, enter "\*"]

#### To Change Programming Code:

- 1. Enter Programming Code
- 2. Enter "\*"
- 3. Enter "7"
- 4. Enter "\*"
- 5. Enter New Programming Code
- 6. Enter "\*"
- 7. Re-Enter New Programming Code
- 8. Enter "\*"

#### **To Delete Codes:**

- 1. Enter Programming Code
- 2. Enter "\*"
- 3. Enter "5"
- 4. Enter "\*"
- 5. Enter Code
- 6. Enter "\*"

- 7. Enter "\*" to Delete more, repeat from step 5
- 8. To End, enter "\*"

#### To Change Relock Time Delay (Default 5 seconds):

- 1. Enter Programming Code
- 2. Enter "\*"
- 3. Enter "99"
- 4. Enter "\*"
- 5. Enter "1"
- 6. Enter "\*"
- 7. Press 1 for 1 second and/or 5 for 5 seconds. The times will add.
- 8. To End, enter "\*"

#### **Final Thoughts**

The Cobra lock is fairly easy to install and program. Like any other combination lock, the key is stored in someone's brain and not on a key ring. Someone does not have to physically take anything from you to take your "key." This is not a problem unique to Cobra or any other keypad style lock. It runs across the board. Even if someone doesn't see the code entered, the number of digits in the code will affect the likelihood of code guessing. The wide ranges of programmable digits for the Cobra gives the programmer wide latitude in the overall security of the lock. The more digits required, the more difficult it will be to guess a working code. With fewer digits, it becomes easier. Consider the application and location when recommending any lock to a customer.

Most programmable locks of this type allow some variation in the number of digits in selected codes, but usually require that all codes have the same length. Either all user codes are 5 digit or 7 digit, or whatever was chosen. You judge the likelihood of guessing by total possible codes. The Cobra has the ability to assign user codes of varying digits to different users. That can be a blessing or a curse. Let me explain.

If the Cobra was used on a company bathroom to keep people off the street from using it, security is not of extreme concern. If someone played with the keypad and accidentally gained entry to the bathroom to use the facilities, it would probably be no great loss. Where Cobra shines here is that if one person has a 4 digit number that they find easy to remember and another works better with a specific 5 digit number, you can assign everyone an easily remembered code of varying digits. Most brands can't do that.

Now you're saying that I explained earlier that you can use odd only or even only numbers in the codes. What happens if someone's preferred code is 1225 to represent Christmas day? What I suggest is that you record all codes as either odd only or even only numbered digits. You can assign them either way. If you record codes as odd numbers, the previously mentioned code would be recorded as 1115. Recorded as even numbers, it would be 2226. In your records, you could list all your assigned codes in two columns. One column could be for record purposes (being either odd or even only) to easily cross check against repeated codes. The second column could list the same codes as the end user intends to remember the code (with mixed odd and even digits). Because of the varying digits, you couldn't use 228 and 2284 because one code is part of the other. The same restriction applies to any odd/even variation that uses the same keys.

Here is where it could be a possible curse. If the end user has an application where everyone is issued 7 digit codes, there would be minimal likelihood of random guessing. On most other brands, once a 7-digit code is chosen, everyone must have a 7-digit code. With Cobra, if the employer considers a specific person with less than a nimble mind and assigns a 3-digit code just for him, he has compromised all the 7 digit codes. If you try all the possible 3 digit codes, you'll get in.

As long as you account for this capability in Cobra and instruct your customer, vou shouldn't have a problem. The user code with the fewest digits will define the overall security of the lock, regardless of how many 7 or 8 digit codes are being used by others accessing the lock. They can't maintain their presumed level of security, if some of the codes use very few digits. Since there is no audit capability in Cobra, you couldn't track a pattern of someone trying to guess codes. It wouldn't take that long to try every possible 3 digit code. If they rethink the need for audit capability, you could always recommend the Schlage CM (computer managed) series of locks. For more information, contact: Schlage Commerical Lock Div., 2000 Sierra Point Parkway, Brisbane, CA 94005-1850. Phone: (800) 847-1864 or 719-264-5300; Fax: (800) 452-0663: Web: www.schlage.com or vour local locksmith wholesaler. Circle 280 on Rapid Reply. ITL

# MOTORCYCLE SPEC SHIETS

The following is a spec sheet of motorcycle models, years, code series, number of cuts, key blanks and key plate number information. This information is from the Fast Facts book published by Bob Sieveking. For those not familiar with the "Key Plate" it describes a particular key and lock configuration used in Fast Facts, also used as an index reference. For more information on the Fast Facts book, contact: Sieveking Products Company, P.O. Box 4287, Rockford, IL 61110. Phone: (815) 874-4030.

#### **Harley Davidson Cycle**

NOTE: When model and year are not listed, use the lock code series to select key Plate#.

Model	Years	Code Series	Cuts	ILCO#	Curtis#	Jet#	Plate#
Drsr Electro Glide	94-98	HD tubular	7	1137B		137B	HD01
Drsr Tour Glide	94-98	HD tubular	7	1137B	-	137B	HD01
Drsr Ultra Glide	94-98	HD tubular	7	1137B	-	137B	HD01
Drsr Road King	94-98	HD tubular	7	1137B	-	137B	HD01
Drsr Standard	94-98	HD tubular	7	1137B	-	137B	HD01
Dyna Lowrider	94-98	HD tubular	7	1137B	-	137B	HD01
Dyna Wide Glide	94-98	HD tubular	7	1137B	<u>-</u>	137B	HD01
Dyna Convertible	94-98	HD tubular	7	1137B	-	137B	HD01
Softail Custom	96-98	HD tubular	7	1137B	-	137B	HD01
Softail Heritage	96-98	HD tubular	7	1137B	-	137B	HD01
Softail Springer	96-98	HD tubular	7	1137B	_	137B	HD01
Softail Fat Boy	96-98	HD tubular	7	1137B	<u>.</u>	137B	HD01
Softail Bad Boy	96-97.	HD tubular	7	1137B	<u>-</u>	137B	HD01
Softail Custom	89-94	001-200	5	X226	_		HD02
Softail Heritage	94-95	001-200	5	X226	-		HD02
Softail Springer	94-95	001-200	5	X226	-		HD02
Softail Fat Boy	94-95	001-200	5	X226			HD02
Softail Bad Boy	94-95	001-200	5	X226	_		HD02
Super Glide	95-98	HD tubular	7	1137B			HD01
Super Glide	94+	A-Z	5	X234	_		HD03
Sportster 883	94-98	A-Z	J	X234	_		HD03
Sportster 1200	94-98	A-Z		X234	_		HD03
Wide Glide	84-92	001-200	5	X226	_		HD02
Softail, WideGlide	84+	FLH 001-200	5	P64K	_		HD44
most V-Twins	80-93	43-82	3	X93	_		HD04
most V-Twins	80-93	83-118	3	X94	_		HD05
most V-Twins	80-93	83-118	3	X95	_		HD06
most V-Twins	80-93	83-118	3	X96			HD07
most V-Twins	80-93	83-118	3	X97	_		HD08
most V-Twins	80-93	83-118	3	X98			HD09
most V-Twins	80-93	43-82	3	X100			HD10
most V-Twins	80-93	43-82	3	X100			HD11
most V-Twins	80-93	43-82	3	X101 X102			HD12
most V-Twins	80-93	43-82	3	X102 X125	_		HD13
most V-Twins	80-93	43-82	3	X125			HD14
most V-Twins	80-93	43-82	3	X120 X127			HD15
most V-Twins	80-93	43-82	3	HYD1			HD16
most V-Twins	80-93	43-82	3	HYD2			HD17
most V-Twins	80-93	43-82	3	HYD3			HD18
most V-Twins	80-93	43-82 43-82	3	HYD4			HD19
most V-Twins	80-93	43-82 43-82	3	HYD5	<u>. 1</u> 41		HD20
most V-Twins	80-93		3	HYD6			HD20
		FLT 011-127		HYD7	-		HD21
most V-Twins most V-Twins	80-93	FLT 011-127	3 3	HYD7 HYD8	•		HD22 HD23
most V-Twins	80-93	FLT 011-127	3	HYD8 HYD9	-		HD23 HD24
IIIOSC V-IWIIIS	80-93	FLT 011-127	3	פטוח	-		ПИ24

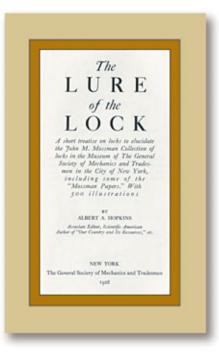
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Model	Years	Code Series	Cuts	ILCO#	Curtis#	Jet#	Plate#
most V-Twins	80-93	FLT 011-127	3	HYD10			HD25
most V-Twins	80-93	FLT 011-127	3	HYD11	-		HD26
most V-Twins	1982	FLT 011-127	3	X133			HD27
most V-Twins	1982	FLT 011-127	3	X134	-		HD28
most V-Twins	1982	FLT 011-127	3	X135	-		HD29
most V-Twins	1982	FLT 011-127	3	X136			HD30
even# codes	84+	FLT 500-600	5	X141	_		HD31
odd# codes	84+	FLT 500-600	5	X142	-		HD32
most V-Twins	80-93	001-200	5	X226	-		HD02
most V-Twins	70-79	B250-499	5	H1098M	-	B2	HD33
early V-Twins	pre-70	C250-499	5	1098L	-	B4	HD35
early V-Twins	70-79	EC 1-11	5	1041G	-	CG1	HD36
light weight		UR 1-35	3	H78KR	- 1 -		HD37
light weight		UR 36-70	3	H78K	-		HD38
light weight		1-35	3	H78KR	-		HD37
light weight		36-70	3	H78K	-		HD38
early models		1601-1609	5	H1098M	-	B2	HD34
light weight		122-444	3	X47	-		HD39
light weight		F 1-78	4	63SP			HD40
Sprint Fork Lock		101-135	4	H72G	- I		HD41
Sprint Fork Lock		136-170	5	H72H	-		HD42
steer lk, all mdls	all	1-2-3-4-5	5	SR61N			BM03
TourPack Sdl Bags		LL226-450	5	1041T		CG16	HD43
aftermarket igns.	all	code unk.	5	HY9	-		HD44
after market igns.	all	A001-160	5	X44	-		HD45

#### **Honda Cycle**

NOTE: When model and year are not listed, use the lock code series to select key Plate#.

Model	Years	<b>Code Series</b>	Cuts	ILCO#	Curtis#	Jet#	Plate#
CBR Models	1998-02	J00-U39	8	X265	HD-109	HD103	HO01
Goldwing	2001-02	5001-8442	8		HD-110-P		HO10



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Model	Years	Code Series	Cuts	ILCO#	Curtis#	Jet#	Plate#
Other Mdls	1970+	LIST 'B' series 1&3	4	HD67	HD-76		HO14
Other Mdls	1970+	10B-44A (1 or 3)	4	HD67	HD-76		HO14
Other Mdlss	1970+	LIST 'B' series 2&4	4	HD66	HD-77		HO15
Other Mdls	1970+	10B-44A (2 or 4)	4	HD66	HD-77		HO15
Other Mdls	all	121-840	5	X138	HD-75	HD75	HO09
Other Mdls	All	101-820	5	X84	HD-74	HD74	HO08
Other Mdls	All	T-6 thru T-9	3	-	HD-82		HO11
Other Mdls	All	T-1 thru T-4	3	_	HD-83		HO12
Other Mdls	All	T-5 & T-0	3	HD59	HD-84		HO13
Other Mdls	All	A-00 thru B-99	5	X84	HD-74	HD74	HO04
Other Mdls	All	C-00 thru D-99	5	X138	HD-75	HD75	HO05
Other Mdls	All	Direct Digit Code	5	X58	HD-73		HO07
Other Mdls	All	Direct Digit Code	5	X57	HD-72		HO06

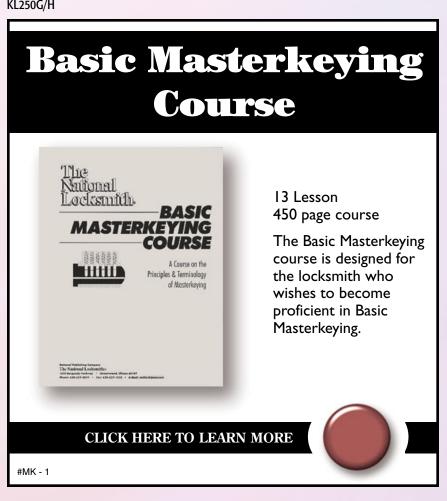
#### **Kawasaki Cycle**

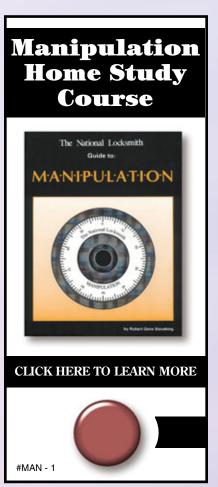
NOTE: When model and year are not listed, use the lock code series to select key Plate#. Some models will be found with multiple key possibilities. (same model/same year, different code & key section) Search the model list to find the "alternate" key possibilities. i.e. Model DX250F can use G,H,J,K, or L code series. The "Code Series" determines the "Key section."

Model	Years	Code Series	Cuts	ILCO#	Curtis#	Jet#	Plate#
DX125A							
LX250E							
LX250F							
DX200J	All	G113112-144342	6	X258	KA-24		KA05
DX220B							
LX250E							
LX250F							
LX300A	All	H113112-144342	6	X259	KA-25		KA06
	All	J113112-144342	6	X260	KA-26		KA07
	All	K113112-144342	6	X261	KA-27		KA08
	All	L113112-144342	6	X262	KA-28		KA09
EF300							
VF400A							
LF400A							
LF400B	All	326K-400K	5	X257	KA-23		KA04
21 1000	All	251K-325K	5	X256	KA-22		KA03
	All	176K-250K	5	X255	KA-21		KA02
ZX100A	7 111	170K 230K	3	AZ33	IO ( ZI		10.102
ZX1100A							
KDX125A							
EL250A/B/C/D							
EX250E			The same of the sa				
KZ400E					100		
ZR550A					0		
KZ550A/C/D				12	A TO		
KZ550F/G/H				19			
KZ650D				4		_	
				-		7	
KZ700A						7	
VN700A					TO THE PERSON NAMED IN	<b>9</b>	
ZN750A	7		1				
VN750A	A				$\Pi \Pi$		
KZ750H/K/L/M		AS A					
KZ750N/P/R/S							
ZL900A			1	Till 2			
KZ1000A/J/P		37	1 2 2			BH I	
KZ1100A/B/K/R		Tour I		1/5			
XZ600D				Control of the Contro	F-6/1		
ZR750C				W. Commission		7.4	26
ZX750H						A A	
ZX1000B/C							
ZR1100A						100	
ZG1200A/B							
KLF100A/B							
KLT110A							
					-		

KSF250A

Model	Years	Code Series	Cuts	ILCO#	Curtis#	Jet#	Plate#
KXT250B							
KLF300A							
ZG1000A							
EX250F							
ZX600C							
ZX750F	All	Z 5001-6000	6	X103	KA-16	KA14	
KA18/KA25							
KL650A/B							
EN500A/B/C							
VN800A/B							
VN1500A/B							
VN1500C/D	All	B113123-B342131	6	KW14	KA-18		
KA13/KA15							
KZ200A/C							
EX250C							
KL250A/B							
KE250B							
KZ250A-250W							
KZ305A/B							
KZ305C/D	All	A113123-A342131	6	KW14R	KA-17		KA12
EX305A/B							
KZ400B/D/G							
KZ400H/R/T/V							
KZ440A/B/C							
KZ440D/E/F							
KZ440G/H							
KL600A/B	All	B113123-B342131	6	KW14	KA-18		
KA13/KA15							
KH100A/B/C/G							
KH100H/K/J							
KDX200B/D	All	A113123-A342131	6	KW14R	KA-17		KA12
KL250G/H							





Model	Years	Code Series	Cuts	ILCO#	Curtis#	Jet#	Plate#
ZX600E/F			Jaha				
ZX750L/M							
X750N/P	All	B8001-9000	7	KW15BP	KA-19		KA10
X305A/B							
Z400B/D/G/H							
Z400BR/T/V							
Z440A/B/C							
Z440D/E/F							
Z440G/H							
L600A/B	All	B113123-B342131	6	KW14	KA-18		KA11
LX650C							
L650A/B							
X750J/K							
L250D							
LX300B							
L600A/B	All	8005-8999	7	KW14	KA-18		KA11
-110A							
F110B							
F220A							
F250A							
F300	All	101 K-175 K	5	X254	KA-20		KA01
X900B/C							
X900D	All	B8001-9000	7	KW15BP	KA-19		KA10
		Suzi	ıki Cycle				
	NOTE: When	model and year are not list		k code series to sele	ect key Plate#.		
lodel	Years	Code Series	Cuts	ILCO#	Curtis#	Jet#	Plate#
SXR750W							
SXR750T							
SF600S							
SXR1100W	1995-02	A6001-A7000	7	X241	SU-18		SZ01
ther Mdls	To 2002	101-499	6	X87	SU-7	SUZ11	SZ03
ther Mdls	To 2002	C 32010-79897	5	X117	SU-10	YH48, 50	YH04
ther Mdls	To 2002	C 1-2-3-4	5	X117 X117	SU-10	YH48, 50	YH12
ther Mdls	To 2002	D 32010-79897	5	X117 X118	SU-11	YH49, 51	YH05
ther Mdls	To 2002	D 1-2-3-4	5	X118	SU-11	YH49, 51	YH11
ther Mdls	To 2002	E 32010-79897	5	YH50	SU-12	11113, 31	YH06
ther Mdls	To 2002	E 1-2-3-4	5	YH50	SU-12		YH13
ther Mdls	To 2002	F 32010-79897	5	YH51	SU-13		YH07
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ZF1000 Other Mdls	Ali Ali Ali Ali Ali Ali	B 1-2-3-4 C 32010-79897 C 1-2-3-4 D 32010-79897 D 1-2-3-4 E 32010-79897	5 5 5 5 5	X117 X117 X118 X118 YH50	YM-59 YM-59 YM-60 YM-60 YM-61	YH48, 50 YH49, 51	YH04 YH12 YH05 YH11 YH06



he MIST Freedom II is a wireless point-of-sale transaction terminal. The Freedom II enables mobile professionals to accept and verify credit card, check, and secure debit card payments wherever there is wireless data network coverage. (See photograph 1.) With the Freedom II, mobile locksmiths can accept payments "on the road" knowing that the transactions are secure and the costs are low.

#### • Secure Transactions •

Have you ever accepted payment from a customer by taking a credit card imprint, only to find out later that it had been declined? Have you ever accepted a check only to have it returned NSF? With the MIST Freedom II, a mobile merchant can verify a credit card or a check while the customer stands by. If the credit card or check is declined, the merchant can immediately ask for an alternative form of payment.

#### Wireless Data Networks

The MIST Freedom II operates on MotientTM and cingularTM wireless networks. These are the leading national wireless data networks, offering coverage in all 50 states. Subscribing to and using these data networks is less expensive than using a separate business telephone line for a standalone transaction terminal. This makes the MIST Freedom II wireless payment terminal a practical and economical device to use in the store as well as on the road. Wherever there is wireless data network coverage, merchants can confidently accept credit, debit, and check payments.

Network coverage and wireless data network information is available from the following Internet sites:

Motient:

http://www.motient.com/find/

cingular: http://www.bellsouthwd

http://www.bellsouthw .com/covapp/

#### • Lower Transaction Fees •

The MIST Freedom II saves on discount fees charged by credit card processing



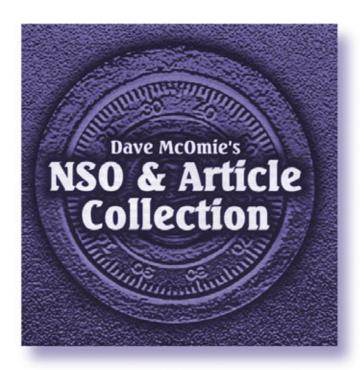


2. The MIST Freedom II authorizes credit cards at the time of the transaction. companies. Merchants are charged higher processing fees when they accept credit card imprints without swiping the credit card on a payment terminal to obtain authorization at the time of sale. The built-in magnetic stripe card reader allows a merchant to swipe the credit card at the time of the credit card transaction. Mobile merchants accepting credit card transactions on Freedom II terminals are charged a lower discount fee by the credit card processor than those who simply take an imprint. Lower fees mean more money for the merchant.

#### Increased Sales with Credit Cards

Retail sales studies have shown that when customers are able to pay by credit card, rather cash, they spend more money. With credit cards, consumers do not need to limit their purchase to the amount of cash in their wallet or checking account at the time of sale. The reality is, merchants who accept credit cards have the potential to increase sales.

With the MIST Freedom II, even mobile vendors can take advantage of



#### Dave McOmie NSO & Article Collection on CD

This CD contains every NSO newsletter and McOmie File Dave has ever published.



credit card sales with the knowledge that these transactions are secure. The MIST Freedom II authorizes credit cards at the time of the transaction. (See photograph 2.) Now mobile vendors have the same potential as store merchants to increase sales. With the Freedom II, they can accept credit cards without the risk or concern that the payment will be rejected later.

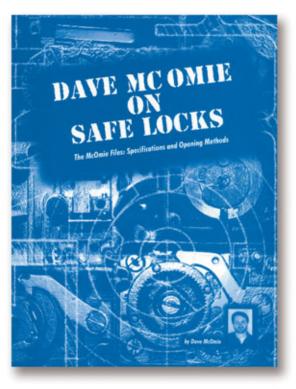
#### • Debit Card Acceptance •

Merchants who accept secure debit card payments offer their customers yet one more payment option. The MIST Freedom II has an integrated secure microprocessor that enables it to accept debit payments. This flexibility of payment can be important in those emergencies when a customer may not have cash.

#### MIST Freedom II Specifications:

- Processors: 32 Bit RISC CPU
- Secondary secure processor for encrypted debit PIN entry Keypad: Phosphorescent, "glow-inthe dark", 26-key, 4 programmable function keys
- Radio Modems: Motient (DataTAC), cingular (Mobitex)





# Dave McOmie on Safe Locks

Almost 300 pages of information, photographs and illustrations give you every scrap of information about a huge variety of safe locks.

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#DMSL - 1

- <u>Port:</u> RS-232 Serial port for communication with external modem and other peripherals.
- <u>Dimensions:</u> 8.9 in (22.7 cm) long x 3.3 in. (8.4 cm) wide x 2.3 in. (5.9 cm) thick
- <u>Power:</u> Rechargeable/Replaceable Nickel Metal Hydride Battery Pack
- <u>Built-in charger Printer:</u> Integrated thermal printer
- <u>Paper roll size:</u> Diameter: 1.2 in (3.1cm), Width: 2.3 in (5.8cm) Display: 4 Line, back-lit Graphical LCD (122 X 32 pixels)
- <u>Card Reader:</u> 3 Track, bidirectional, Magnetic Stripe Card Reader; AAMVA compliant

#### • Balanced, Ergonomic Design •

When you grasp the Freedom II in your hand, you quickly notice that it is comfortable to hold. (See photograph 3.) The Freedom II was designed to fit in the average-sized hand. The terminal is not so wide that it is difficult to hold and not so small that it slips out of your hand during use. The keypad's size is large enough for the keys to be easily seen and comfortable to press.

When you swipe a card to process a transaction on the Freedom II you also realize that the terminal has been ergonomically designed specifically for handheld, mobile use.

Its balanced design with the printer at the top and the card stripe reader at the bottom means that transactions can be performed without having to place the device down on a table. The magnetic stripe card reader is also bidirectional – cards can be swiped to the right or to the left – which makes using the device comfortable for both right-handed and left-handed users. The terminal is also weight-balanced, not top-heavy or bottom-heavy, so that it is easy to hold and does not fall out of your hand while performing a transaction.

#### • MIST •

MIST Inc., the company that produces the Freedom II, provides wireless transaction-enabling solutions and technologies. The "MIST Freedom" family of transaction terminals have been developed to allow merchants to take advantage of the latest cost-saving communication and security technologies. MIST has facilities the

United States, Canada, the United Kingdom, and Japan. MIST Inc. is publicly listed on the Toronto Stock Exchange. More information about MIST can be obtained from the company's website at www.mistwireless.com.

#### Experience the Freedom II

The MIST Freedom II is a rugged, portable, ergonomically designed, handheld, all-in-one wireless financial transaction terminal. Locksmiths can use it in store and on the road to perform secure financial transactions with increased efficiency, lower costs, and improved customer service.

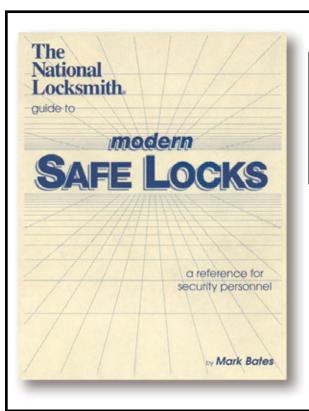
You can obtain a MIST Freedom II terminal by calling Dave Wilson or Eric Eichlin of ePay Management LLC at 1-877-493-3729. ePay Management LLC is an authorized distributor of the MIST Freedom II.

Harry Chand is Director of Communications at MIST Inc.

Motient™ is a registered trademark of the Motient Corporation.

cingular™ is a registered trademark of Cingular Wireless LLC.

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# Modern Safe Locks

You always wanted to make money servicing safes?



# Security Door Controls Entry Check Park Majde Look At The E72

that missed part 1 last month, here is a quick introduction for Security Door Controls (SDC). SDC is an international marketer of over 200 security products. Their



1. Here is a typical hollow metal door that will soon be the new entrance for a local gardening business.

products include digital and card access control, electric strikes, electromagnetic locks, power supplies and a full line of accessories. Their products are channeled through contract and wholesale hardware distributors, security and access control dealers, as well as Original Equipment Manufacturers (OEMs). SDC products are sold through over 200 distribution centers worldwide.

Last month I took apart one of their electronic entry locks. It was

the E72 EntryCheck™, Grade 1, stand alone door lock and access control system. The base model is capable of handling up to 64 users. It is designed for easy installation and long reliability. My mission is to see just how easy the E72 is to install.

I started with a new metal door that was recently installed at what is to be the main office for a local gardening business. (See photograph 1.) It was pre drilled with a 2-3/8" backset. I had a 2-3/4" latch so I had to make a minor change to the cross bore.

Years ago I made a couple of jigs just for this purpose. They are made out of Oak and works very well. One jig is for a 2" hole and the other is for a 2-1/8" hole. Each jig has both a 2-3/8" and 2-3/4" backsets. For this job I needed the jig for a 2-1/8" hole and I used the 2-3/4" backset portion. (See photograph 2.)

Any type of clamp can be used to hold the jig in place. I have used a 1/2" pipe clamp for years and am very happy with the results. To try to



2. Like many non-commercial doors, this one needed to have the 2-1/8" cross bore relocated from 2-3/8" to 2-3/4".

relocate a cross bore without some kind of aid is very time consuming and can be frustrating.

Richard Allen Dickey

The template included with the installation instructions has a dual purpose. Aside from its obvious use to locate the four holes needed for installation, it can also be used as a door thickness gauge. The lock can be adjusted for a 1-5/8" to 1-7/8" door thickness.

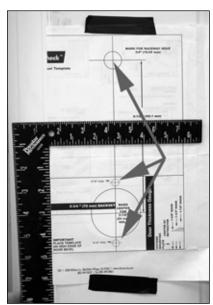
In this case the door is 1-3/4" thick. The lock comes from the factory with the appropriate spacers already installed for a 1-3/4" door. (See photograph 3.) To change the spacing for a different door thickness, the lock assembly can be screwed into or out of, the outside housing assembly. For a 1-5/8" door at least one spacer has to be removed.

To remove a spacer, just unscrew the lock assembly from the outside



3. The door thickness of this door is 1 3/4". The lockset can accommodate anything from 1-5/8" to 1-7/8".

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4. A template is supplied that is used to locate drilling points. There is a 3/4" hole at the top and two 5/16" holes along with the 2-1/8" cross bore.

housing assembly, remove the appropriate number of spacers and screw the two pieces back together again. That's all there is to it.

As mentioned earlier, there are four holes needed to install the E72. The cross bore that I relocated is one hole. Two 5/16"



5. With all of the holes drilled, the outside housing and lock assembly can be slid into place.

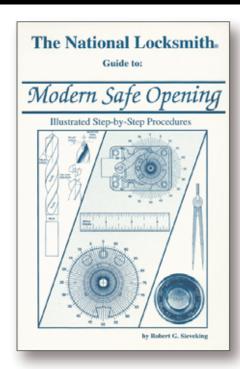
holes are needed, one above and one below the 2-1/8" cross bore. (See photograph 4.) The fourth hole has a 3/4" diameter and is located 6-1/2" above the center of the 2-1/8" cross bore. This allows the wires from the outside housing assembly to pass through the door. It also acts as an excellent anchor for the upper portion of the outside housing.

The latch requires a 1" edge bore. The template can also be used to locate this hole. In my case I had to enlarge the 7/8" edge bore to a 1" hole with a Dickey-Bit $^{TM}$ . The mortise for the latch also had to be enlarged slightly.

After all of the prep work was done on the door, the lock assembly and outside housing assembly slide into place. (See photograph 5.) There are two things you need to watch for. Be careful not to damage the wires and be sure the latch is properly engaged in the lock housing.

The outside assembly and lock assembly are held in place by the same two screws and raceway nut

# Modern Safe Opening



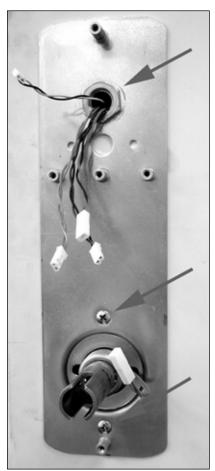
This book is a step-by-step How-To course in safe penetration. Opening safes is one of the most profitable aspects of the locksmithing business.

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#MSO - 1

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6. The interior backplate is installed next. It is held in place with two screws and one raceway nut.

that hold the interior backplate in place. (See photograph 6.) When these are tightened, the entry set is firmly attached to the door.

It is time to connect a few wires. There are four pairs of wires with connectors that come from the outside assembly and pass through the 3/4" raceway at the top of the interior backplate. Connect the gray/red wires to the gray/red wires from the lock assembly. Connect the red/black wires to the red/black wires from the battery pack. The yellow/black wires are used in the system reset process.



7. The battery holder slides over the stud at the top of the interior backplate.

Attaching the battery pack is the next step in the installation process. The four AA batteries used to power the lock are held in a battery holder. This holder hangs from a stud at the top of the interior backplate. (See photograph 7.) There is a notch in the stud that will keep the battery holder in place.

With the battery holder in the proper location on the stud, the bottom mounting tab will straddle another mounting stud. (See photograph 8.) When the battery holder is located properly, the inside lower housing can be



8. The bottom portion of the battery holder fits around another mounting stud.

installed. It is held in place with two #8 brass screws at the top and one finished #8 screw at the bottom. (See photograph 9.)

The battery cover is held in place with two finished #8 screws.



9. The lower cover is slid into place and attached with two brass screws located at the top and a finished screw that is located at the bottom of the assembly.



10. The battery cover is attached with two finished #8 screws.

By attaching the battery cover and slipping the lever into place, the inside portion of the lock installation is done. (See photograph 10.)

The outside lever is installed like any other. The lever is slid into place until it stops, the key is turned a little in either direction



11. Here is the outside portion of the lock with the lever attached.

while the lever is slid a little further into its secure position. (See photograph 11.) Next step is the strike.

The standard strike supplied with the lock is a 4-7/8" ANSI style with a

Continued on page 88

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#### Continued from page 86



12. The strike is of the ANSI 4-7/8" variety.

626 dull chrome finish. A little mortise work and the strike fits perfectly. (See photograph 12.) Programming a few access codes will complete the job.

While the E72 seems to have a few more features (a full list of

features can be seen in last months article) than most other locksets that are in the same category, it also has many similarities. To start with, the E72 can be programmed directly from the keypad on the lockset (see photograph 13) or through an



13. Unlike most others, the E72 has a 16 key keypad.

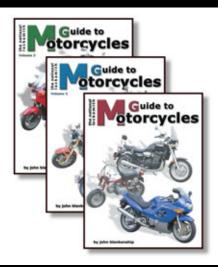
infrared handheld device that works in conjunction with a computer. (See photograph 14.) The hand held infrared data transmitter is very convenient and is required if retrieving an audit trail. Lets give the manual programming a try just to see how easy it is.

The first requirement is to initialize the lock. This is a simple two step process and only has to be done when the lock is first installed or after a full reset. Here are the steps.



14. Programming the lock can be done with an Infrared handheld device or simply by pressing buttons on the keypad.

# Guide to Motorcycles Volumes 1, 2 & 3



For years locksmiths have begged for a comprehensive service manual on motorcycles and its finally here!



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1. Enter the factory code of "9991234" and press the pound key. The LED will turn green, yellow, green. (See photograph 15.)



15. The LED is located at the top, center of the keypad and will produce three colors. Red, green and yellow.

2. Enter a lock identification number that you make up and press the pound key. The number has to be six digits long and numbers can be used more than once. The LED will turn green, yellow, red if successful.

The next requirement is to initialize the Great Grand Master (GGM) code. It consists of a user identification and a PIN number. The length of the GGM codes will determine the length of all other codes used in the system. Here are the steps.

- 1. Enter the factory code of "9991234" and press the pound key. The LED will turn green, yellow, green.
- 2. Enter a user identification number that you make up and press the pound key. It has to be either three or four digits long. I am using 9121 for the example. The LED will turn green.
- 3. Now enter a PIN number that you make up and press pound. This can be from three to six characters long. I say characters because not only can you use the numbers 0-9 you can also use "A", "B" or "C" within the PIN. I am using "A7672" for this example. The total length of the user ID and the PIN can not exceed nine characters. The LED will turn green, yellow, red if successful.

At this point the lock can be opened by pressing the user ID and

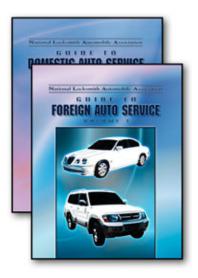
the PIN, followed by the star key. Here is what the sequence would be for the GGM that was just entered. "9121A7672\*". That is a long code to remember. This length can be shortened if high security is not an issue, by turning on the "PIN ONLY" option in function 32. This can also be done from the keypad.

Users, groups and all of the other functions listed in last months article can be done from the keypad. Just remember that the IR device can be used in conjunction with the computer software to do the same thing. If you have a lot of stuff to add or a lot of locks to maintain, the IR device would be the way to go.

Well, I have had enough fun for today, so I have to go and you need to stay on top of new technology. Don't fall behind, it is a pain to catch up! See you next month.

If you would like more information on the E72 EntryCheck<sup>TM</sup> or any other products from Security Door Controls, give them a call at 805-494-0622. Their fax line is 805-494-8861. You can also visit their web site at www.sdcsecurity.com, or e-mail them at service@sdcsecurity.com

## NLAA Guide to Auto Service

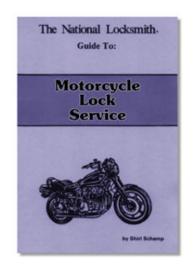


You get car opening, lock removal and service, column service, key and code series information, and many views of the doors, panels and locks.

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#### Motorcycle Lock Service



This book contains full details on everything the locksmith needs to know about motorcycle locks.

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#MI S-1





Author: Jack Tom

(jackeyman@webtv.net)

Subject: Lockout/Foreclosure

I am a Lockout/Foreclosure locksmith and I'd like to present some tips and have other locksmiths in the same field respond.

- 1. Always wait for Sheriff/Constable to be on site before starting.
- 2. Preview target door to determine the tools/locks needed, so you can get locks unpacked and tools ready. I pose as a delivery or repairman to gain entry to buildings with intercom systems. I have a vest with pockets to hold tools needed, and locks disassembled and ready to install.
- 3. Wear body armor if you have any doubts. I've been shot at and stabbed! The realtor handling the property can usually tell you if it's a hostile lockout.
- 4. Always park your vehicle out of sight from job location. (People being evicted like to take it out on your van.)
- 5. Be civil to evicted party (Its a job, nothing personal.)
- 6. Be safe! I served 6 years as an Army Paratrooper and this type of locksmithing is interesting. However, the jobs are still disturbing if kids or senior citizens are involved.

If any locksmiths do the same kind of work, please comment. I have many tricks of this trade if anyone is interested.

\*\*\*\*\*\*

**Author:** William Tiner

(accesslock1@hotmail.com)

**Subject:** Lack of Communication

Just the other week I was with the Sheriff and Police to evict a resident and there was a serious lack of communication. After picking the lock, I was met by a crazy woman swinging a hatchet! S.W.A.T. was called in to finish the job with no injuries. I rarely do this service and it is fine with me.

\*\*\*\*\*\*

**Author:** Chris Gonzales (gnzleslock@aol.com)

Subject: I was Robbed

Things can also happen on routine calls. I have seen a guy get stabbed with a screwdriver on what was supposed to be a simple car key job. Also, I was once robbed of my after-hours fee by some neighbors of my client. Things happen and you need to be totally aware of the situation and leave if something doesn't feel right. No doubt, we take risks and also take things in good faith.

**Author:** Jake Jakubuwski (natllock@aol.com)

**Subject:** Evictions

There is no question in my mind that every time we leave the driveway, we put ourselves at risk. Traffic accident, robbery, disgruntled customer. But, those are random events over which we have no control. It's the luck of the draw, so to speak. On the other hand, purposely walking into a situation where tempers are short and folks (the good guys or the bad) have guns, is not worth a hundred bucks or so, to me.

I agree that we have to be vigilant and aware no matter where we are. I find no fault with anyone that wants to do the "riskier" work. It's just not my cup of tea.

I don't do foreclosures, unless the realtor assures me the premises are vacant.

The last eviction I was called to do, about seven years ago, was for the Federal Marshal's Office. When I got to the site there were about thirty people at the end of the drive—all of them with guns, helmets and body armor! And me with just a pick set. I stopped, asked for the agent-in-charge, told him who I was, gave him my card and told him the card was his to keep so he would remember who not to call the next time! Then I put some distance between me and all that firepower. Since then, I refuse all evictions.

I know somebody's got to do it, but not this ol' boy. If I wanted to put myself in harm's way as a part of my job, I would have become a rodeo hand, cop, and stuntman or married Lorena Bobbit! The only body armor I want to wear on the job is Right Guard, for when I work up a sweat rekeying a garage door lock on a 98-degree day.

I figure that voluntarily dancing with danger, on a day-to-day basis, is just not a fun service agenda and could very easily make my hide truly and permanently worthless!

For those of you who do accept this kind of work, I wish you the best of luck and hope you make a million dollars doing it. I also hope you live long enough to enjoy the fruits of your labors!

For my part, I already have a terminal illness known as life and intend to succumb to its ravages as slowly and as gracefully as possible.

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**Author:** Derek

(help@thelocksmith.net)

Subject: Fist Fights and More

I have lost some realty accounts because I refuse to do foreclosures. I realize that someone has to do it, but the one that I did didn't have hatchets, guns, or knives, but they did have three kids. I know that they may have it coming, but I have had some slum-landlords in this area, so I sympathize with the occupant. When the building is vacant, I will go.

I have had several business partners try to lock out the other partner and have seen fistfights ensue. One time a guy didn't' want to pay me because the guy he was trying to lock out came to work that day, thus interrupting the rekeying process. I guess he made the mistake that some make here, i.e., that I'm civilized and will take such things with a grain of salt. I'm not.

Also, two auto reposessers were shot and killed locally. The two gunmen weren't even convicted of manslaughter. If someone shoots me, I want them taken off the street.

\*\*\*\*\*

**Author:** George Henderson (laurenslock@aol.com)

Subject: Never, Never, Never

I've turned down a truckload of requests for that type service. Unless the property is vacant and I can see that it is, I won't touch it. Lost a few customers, but that's okay, since we don't need that kind of stress.

\*\*\*\*\*\*

**Author:** Carl Findley

(locknkey@beaufortco.com)

**Subject:** Foreclosures

I do foreclosures, but only on vacant properties. I was recently sent by an out of state company to do a property. When I arrived it appeared to me that the property was still occupied. I rang the doorbell just to be sure. When a man answered the door, I told him I had been sent to change the locks, but I was told the property was vacant. I apologized for disturbing him, left and called my customer back to inform them that the property was occupied and I would be sending them a bill for the service call. They told me they would take care of it and call me back when they were sure the property was vacant.

I will not knowingly take a job until they property is vacant. I tell my customers to call me after the eviction is done and the tenants are not on the property. You don't want to be there while the eviction is taking place. **Author:** Donald S. Mohan (donmohan@pikeonline.net)

Subject: Evictions/Foreclosures

I do lots of these, but only for Realtors who have shown that they know the laws, and haven't cut any corners. 95% of the properties are vacant before it comes down to having the sheriff enforce an eviction order, that's why the deputies are there—to enforce a court order. I never communicate with the evicted party. I'm just hired help there to change the hardware.

Don't ever let a realtor or landlord make you do the dirty work of

dealing with the occupant. That isn't what we get paid for.

In this part of the world, the courts give them at least sixty days notice. It is no secret that at 8 a.m. on such a date, the sheriff's deputies, or the city Marshall is going to show up and put them off the premises, if they aren't already gone. I find that if the Landlord/Bank/Realtor has complied with the letter of the law, there usually isn't any problem. If there is a problem, it's the deputies' job to deal with it.

# NLAA One Year Membership



The big problem in automotive locksmithing is the tremendous amount of information you need to have at your fingertips.



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**Author:** Gary Allan Fitzgerald (g.a.fitzgerald@worldnet.att.net)

**Subject:** Evictions

In this neck of the woods, the local Sheriff's Department performs the actual eviction. The owner, or more likely the Real Estate agent, always meets me. If you get there early, check the mail, electric meter (see if its been shut off by the power company); check the parking area for vehicles and if you have the time ask questions of everyone. Ask the neighbors if they moved out, what they were like, what they look like. Ask about guns, drugs, etc. Bottom line is asking questions!

Author: Raymond

(compact45@earthlink.net)

Subject: Get Out—Now!

I have not done any foreclosures in my career, but have done a whole lot of evictions. The best advice I can give is to be sure the Sheriff Dept. has a Deputy out there doing the evicting.

And then, only after the Deputies have ensured that everyone is out of the premises, should you commence to "do your magic" on the locks.

Here in San Francisco, if the doors are locked, and there is no one to let you in, you must gain entry through the front door, rear door, or side door only!

You cannot gain entry by climbing through a window, or any other way. The reason being, the Deputies must enter the establishment first, to ensure that the premises are empty or do the tenant evicting themselves.

I've seen an entire family, (mom, dad, two children, and the pets), sitting out on the front lawn, with all their "necessary" belongings, as I'm driving away.

That's heart breaking.

There are shelters that you can direct them to, but my hands are usually tied, and I try to stay away from being the "middle-man" in these legal actions. (Not that I don't want to be, but I've learned my lessons the hard way.)

Don't need to let a dog bite me twice, for me to learn a lesson!

\*\*\*\*\*\*

**Author:** Robert Knueppel (bobkdoe@hotmail.com)

Subject: Domestic

Problems/Violence

I have done my share of work for various city, state, and federal agencies, as well as private individuals. The most dangerous for me have been domestic in nature. (Woman kicks man out and gets restraining order etc.) They always seem to forget to tell you that there is a problem. If I feel that a problem exists, I ask point blank and explain that I have been through it before and like to know what I'm up against.

I have been chased by men with pipe wrenches, physically assaulted twice (nothing serious), bitten by a dog, and have been cussed at and threatened many times. I will never turn down this type of work. I believe it is part of the job and wrong to turn away. These people need help and have a right to protect themselves. Anyone who turns away this type of work and accepts only the "gravy" jobs should think back to a time when they desperately needed help.

Most of what we do is negative in nature, meaning something bad has happened and we were called to help. Having said the above, I do believe in self-preservation. If you do this type of work, use your head and be alert. Common sense is your best defense.



# Beginner's Corner

By Tim Nycum

#### Security Survey

hen a person's personal property or safety has been violated, it involves much more than a loss or destruction of tangible items. Often the victimization continues with police reports, insurance hassles, increase of premiums and inadequate replacement values. To say nothing of the trauma caused to the victims.

Many times the most devastating effects are the feelings of vulnerability, anger, fear and your sense of 'loss of control,' which continue long after the incident. Sometimes the victims never do fully recover from this traumatic event mentally!

Police reports indicate there were 3,000,000 burglaries (1 every 9 seconds), 1,500,000 vehicle thefts (1 every 20 seconds), and 1,400,000 violent crimes, which include murder, assault, rape and robbery (1 every 19 seconds) not in 2002, but in 1993. The numbers today are much more staggering. Those are very sobering statistics.

Fighting crime today is everyone's responsibility! One way or the other we all shoulder the financial burden that criminal acts incur.

The following Security Survey can be used when offering a security site survey or given to customers as promotional literature, making them aware of their vulnerabilities and aware that you can resolve them.

#### Overview from the Road or Think Like a Thief

Your first line of defense is at the road. You will want to show deterrents and obstructions where a thief could be vulnerable. You want to project to anyone that you are serious about the protection of your property so they will not even want to consider looking further at your home. They will instead go elsewhere, after all, there are a lot of easier "Targets."

As you view your property project yourself into the role of a thief and look for areas that could be susceptible to attack.

Remember they hate light, noise and multiple obstacles.

#### **Mailboxes and Phone Listings**

I recommend using only the street address on your mailbox. If your name appears on the mailbox it would be a good idea to remove it. If you need to list your name in the phone book omit your address.

In this manner, you neutralize any attempt of them calling the house to see if anyone is there.

#### Perimeter Fencing and Driveway Gate

Fencing around your property is optimum! Even if it is only across the front part of the house. A gate across your driveway can significantly reduce the number of break-in attempts without doing anything else. We use electric fencing around our property. You should check local ordinances for legality.

#### Get a Dog That Barks from your Yard and Home

Many reformed burglars have told authorities one of the main deterrents they faced was a barking dog. Remember that burglars hate noise.

#### **Yard and Driveway Sensors**

There are many movements, heat and pressure sensitive sensors that are available and compatible with an alarm system in your home. They can be mounted under your driveway, on trees, on your garage, or your house.

#### **Exterior and Interior Lighting**

Both types of lighting are available with motion sensors. Be sure to purchase one of good quality that has adjustable sensitivity levels. This is an excellent inexpensive way to deter burglars. Internal lighting can be hooked up to timer units that are programmed to turn them on at a specific time. You can also talk to the local government about street lighting close to your driveway entrance, if there is not one already there.

#### **Trimming Bushes and Shrubs**

Thieves love the dark and cover. Why provide them with a good working environment. Trim everything possible back so there is good visibility from the road.

#### **Planting Security Bushes**

Have you ever tried to walk through rose bushes, firethorn or barberry? It can really cut you up in a hurry! Try planting some of these in front of and close to windows that could be susceptible to a break-in. After all, shouldn't the burglars really be the ones to get "ripped off"?

#### Burglar Alarm Warning Stickers

Just a simple thing like an alarm warning sticker (placed strategically) could make a criminal think twice and go elsewhere. There are still millions and millions of easier targets.

#### Window and Door Burglar Proof Bars

Wrought-iron door and window security bars, if installed correctly, are a tremendously effective and safe deterrent.

Door installations should include removable-proof hinges, since they have to be on the outside and one-way tamper proof screws. (Minimum of 3inches in length)

Window security bars should be installed inside the house across the window and anchored with 3-inch screws. They should either be hinged or set-up so they can be easily removed from the inside in case of fire or other emergency.

I install these on the inside because the burglar will not want to break the window. Burglars will not contend with figuring out how to remove them. Remember they hate noise and any extra work.

#### Burglar and Security Alarm Systems

Modern technology has given us a new generation of wireless "Do it yourself" alarm systems. These are set up as components so you can design a system unique to your own personal needs. Basic systems start at around \$200.00. Consult a security consultant to maximize the selection of components and location.

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#### Deadbolt Locks and Door Frame Reinforcement

Purchase good quality locks and have them installed by a professional. Single cylinder is sufficient on a solid wood or metal door with no glass within 5 feet of the lock. On doors where glass is within reach of the lock, have a double cylinder (keyed on the inside) lock installed. When you are home, leave the key in the inside lock in case of a fire or an emergency.

If you have a hollow core door, replace it with a solid door. Next, you will need to have a wrap-around brass reinforcement plate installed around the deadbolt lock. Have a metal reinforced strike plate (M.A.G. strike) installed in the frame and secured with 3-inch screws that go through the frame into the stud. Also, make sure your deadbolt has a 1-inch bolt throw.

#### CCTV is a Valuable Security Tool

Again modern technology has advanced closed circuit television and intercom systems to the point of affordability. Many businesses utilize VHS recorders that are hooked up to outside CCTV's as a good form of security. They also post signs notifying people that they are under the surveillance of a camera. Many times the psychology itself works.

Intercom systems are also gaining in popularity as a way to screen visitors. These systems can also be hooked directly to electronic strikes, which automatically release the door when activated with a push-button from the inside.

#### Internal Lighting and Television on Timers

When gone at night for an extended period of time, an inexpensive deterrent are timers that automatically switch on anything that will make it appear that you are home.

Also available is an exterior motion and an infrared sensor that is hooked up to a simulated German Shepherd dog bark that is very realistic.

#### Pin Doors and Sliding Doors and Windows

Any door with exposed external hinges need to be pinned to avoid the possibility of removal to gain entry. This is accomplished by nailing two, 2-inch headless nails into the narrow side of the door on the hinged side (leaving 1 inch of the nail sticking out). Then drill two small holes into the door frame that will accept the 1-

inch of the protruding nail when the door is closed.

Sliding doors should be drilled and pinned so they cannot be forced open with a crowbar or lifted off their track to gain entry.

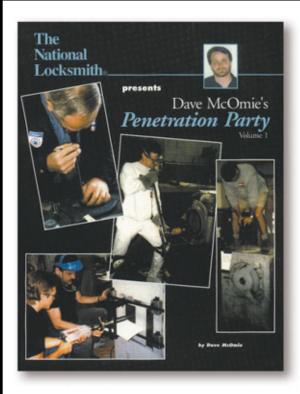
Windows should also be drilled and pinned so a burglar cannot just break the window and release the window catch. You can also drill extra holes so you can open the window and/or door for ventilation and still use your pins for security.

#### Fire-Proof Safe for Valuable Papers and Jewelry

Purchase a good quality fire safe from someone who services what they sell. The little extra in cost is worth being able to call someone to come out for warranty work instead of having to haul it in yourself. Conceal the safe in a closet or wall and make sure it is bolted down from the inside.

#### Start a Neighborhood Watch Program

People have found it not only helpful, but also, a crime deterrent when a criminal knows that your neighborhood is under an organized crime watch program. Call your local police department or a security consultant for details. Strength is in



# Penetration Party

Uncensored! • The Safes! • The Tools!

- The Action! The Perfect Openings!
  - The Bloopers and Blunders!
    - The Slick Tricks!



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numbers! Post your organization's signs proudly in windows or on posts in the neighborhood.

#### Have Door Viewers (Peep Holes) Installed

These are very inexpensive and easy to install. Purchase one that has at least 180° viewing. Do not ever open your door without knowing who is on the other side.

#### **Record Property Identification**

Borrow an electronic etcher and scribe drivers license number on all valuables. Write down a list of all valuables and their serial numbers. Rent or borrow a video camera and film your entire house, cars, garage and property. Keep this information in your fire safe.

#### Install Deadbolt and Phone in Your Bedroom

Have a good quality deadbolt installed, as we described earlier, on your bedroom door. Have a phone put in your bedroom with preset 911 and fire department phone numbers. You want to fortify yourself in case you get caught at home with a thief.

#### **Security for Out-Buildings**

The keys for security in these locations are lighting, solid door and a good hasp and padlock. You can purchase padlocks that can be keyed to your house key. On standard doors and frames refer to the section deadbolts and door/frame reinforcement.

#### **Securing Storm Cellar Doors**

If accessible from inside the home use a 2x4 as a door bolt across the door(s). If this is not applicable, a hasp and padlock will do the trick or a sliding bolt.

If there is only outside access, again good lighting, solid door, a good hasp and padlock are essential.

#### Keep Your Eyes Open and Take Notes

Visual monitoring has also proven effective. Keep your eyes and ears open. Note descriptions and license numbers of suspicious vehicles. Also descriptions of people that are loitering.

#### Hiding an Extra Key to the House

Your safest solution is leaving an extra key with a trusted friend or neighbor. If this is not possible make sure that you pick an abstract location. Burglars know about the

most popular hiding places. There is also an artificial rock with an inner chamber for a key available.

#### Security Measures when you are On Vacation

- Notify police, private security patrols, neighbors and friends.
- ☐ If you have an extra car leave it locked and visible from the road.
- ⊃ Make arrangements to have the mail and papers either picked up by neighbors or stopped.
- ⊃ Put lighting and television on timers. (Internal and external)
- → Leave vacation itinerary and phone numbers with a relative.
- Notify your neighborhood watch people and leave emergency information.
- ⊃ Make arrangements to have the lawn mowed.
- **O** Make sure your property is properly insured.
- Close blinds or curtains at least partially.
- ⊃ If you vacation in the winter, have driveway and sidewalk shoveled.
- ⊃ You should always have a canister of mace at home and on vacation.
- ⊃ Take along a travel lock or a "big jammer" for your hotel door.
- Always keep a compressed "air horn" or attack siren with you.
- ⊃ Remember, your job is to create the illusion that someone is home and that nothing has changed.

#### Fire and Disaster Preventative and Occurrence Plans

- ⊃ Educate your children at a very young age concerning the dangers of playing with fire and matches.
- Make sure your home has smoke detectors and keep good batteries in them.
- ⊃ Educate your children on what to do and not to do in case of a fire.
- ⊃ Practice a home fire drill periodically.
- D Have a designated meeting place (outside the home) in case of a fire.
- Purchase a chain ladder if there are any rooms on the second floor of the house.
- Put fire fighter alert stickers on children's windows.

- ⊃ Educate your children on other possible disasters in your area and teach them proper procedures.
- ⊃ Do not over use extension cords or wall outlets.
- → Have an electrician check your wiring.
- ☐ Have a professional check your furnace, fireplace and chimney.
- ☐ If you smoke, do not smoke in the house! (For several reasons)
- ⊃ Replace old appliances, worn and cracked wiring and throw away heating blankets. (They are no longer recommended)

#### **Post Scripts**

Do not leave ladders lying around in plain sight. Why help them break into your home?

Burglars look for worn areas in your lawn indicating a dog.

#### **Personal Attack Alarms**

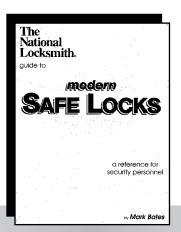
The best deterrent for personal assaults is a combination of things. A tear gas or pepper spray, stun gun (where legal), and the most important item is an attack alarm. Some come with a flashing light that works in conjunction with the 107 decibel siren. It can also be used to locate lost items in the dark (in the lighting mode). These units start around \$30.00

#### **Hotel Room Security**

There are companies that make excellent "motion sensitive" portable alarm that also doubles as an attack alarm. This reasonably priced portable burglar alarm fits in the palm of your hand and sells for \$49.00. It is a necessity for anyone. Because of its versatility, everyone can find a use for one. It can be placed on the door as you sleep and if the door is moved it sounds an alarm. It can only be shut off with your personal access code.

#### Vehicle Security Systems

I recommend "The Immobilizer." This unit circumvents the potential of "hot wiring" your vehicle. There is also a heavy-duty model available for RV's and Semi-trucks. Vehicle alarms are also available. However, I recommend one that does not require "hard wiring." That way when you sell your vehicle it can go into your new one. Quorum International has an excellent alarm that is combined with a strobe light for greater effectiveness and it is very reasonable in price. It is also portable, it can be moved into a different vehicle.



This material was excerpted from the Mark Bates book titled Modern Safe Locks. The book covers combination operating and changing procedures for virtually every combination lock both mechanical and electronic, that you will encounter on a daily basis. Modern Safe Locks is available for purchase through **The National** Locksmith.

# Sargent & Greenleaf / FAS

**MODEL: 6870 and 6880** (1994-Present)

**DESCRIPTION:** Nine lever, key operated, changeable safe lock.

Double bitted reversible key. Key retaining.

**RATINGS:** UL 437 security container key lock; VdS Klasse 2\*; Swedish

standard SS3150.

**FACTORY** 

**COMBINATION:** Standard factory setup key.

**OPENING** 

**CHANGING** 

**NOTES:** 

**PROCEDURES: a.** Insert operating key.

**b.** Turn it right to stop.

TO LOCK: Turn left to stop. Remove key.

LIMITATIONS: Over one million key combinations.

**PROCEDURE:** a. Remove key from lock. **b.** Depress changing button on back of lock and hold it in that

position.

c. Insert current operating key and turn it right to stop.

d. Release pressure on changing button and remove operating

e. Insert new operating key and turn it left to stop.

**f.** Remove new operating key.

WITH THE SAFE DOOR OPEN...

g. Test new operating key (steps a through b under "Opening" Procedures").

**TOOLS NEEDED:** Existing operating key; new operating key.

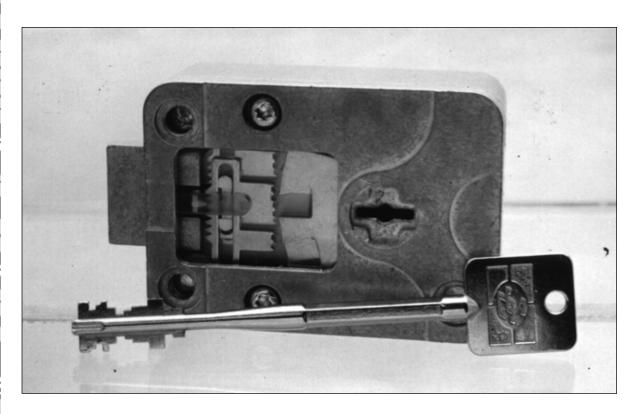
A very nice new entry into the high security key lock market. This lock is made in Sweden through a cooperative effort of

S&G and AB FAS, a Swedish lock manufacturer. \*The 6870 and 6880 are identical. The 70 is marketed in the U.S. and the 80 in Europe, where different key control is required to meet VdS

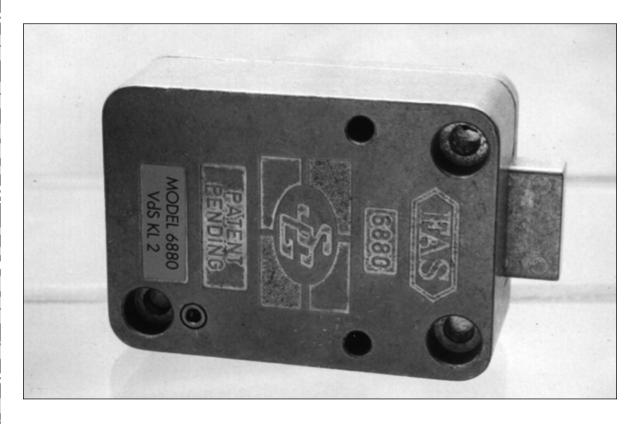
standards.

# ODBIRN SAUS TOCKS TUKCH BULLBUR

### Sargent & Greenleaf / FAS



S&F/FAS 6880



# The Lighter "Take These Chains From my Heart And Set Me Free..." Side



ou Sara Probasco

re have an employee named Keith, who we lovingly refer to as "The Kid," not that he's so very young—he's married and has a five-year-old son—but because everybody else who works at our place of business is either pushing retirement age, or pulling it along behind them.

Keith has worked for us off and on, for four or five years, now. A couple of years ago, he got a bee in his britches to go to work for "law enforcement," specifically, for the local sheriff, a friend whose campaign he had ardently supported.

Somehow, his duties paled somewhat in light of his childhood fantasy of wearing a tin badge and swaggering about town breaking up duels at sundown and rounding up tough hombres and renegade outlaws to the admiration of fair young damsels in distress. In fact, he was assigned to duty at the county lock-up, seeing that the prisoners were where they were supposed to be, and weren't in possession of anything not permitted. His chore that day consisted of conducting a head-count. This meant entering the large, windowless cell and being sure that all eight men were present and accounted for, and that were who they were supposed to be. According to the usual routine, when he opened the door to the cell, he ordered the prisoners to step back. Then he entered the cell, pushing the door open wide, so it wouldn't swing closed while he checked everything out.

Then, the air conditioner came on and a blast of cold air blew the door closed.

Now, when that cell door closes, it automatically locks. That's so nobody can accidentally go off and forget to lock up. The problem was, this time, it locked, all right, but Keith was inside with the prisoners, and he didn't have a key.

Keith gulped, immediately glad he'd never had to get tough with these particular guys.

Two of them were about twice his size, and none of them were looking too friendly, right then. Keith shoved his hands deep into his pockets and began to whistle softly. Then he turned around with a sheepish grin plastered across his face.

"Looks like I done did it again," he said.

Nobody else was smiling. They just sat on their bunks and scowled at him.

Keith cleared his throat, took his hands out of his pockets, and straightened. "Well, I guess I'd better call for back-up," he said.

Nobody replied, but two of the men stood up as Keith stepped to the pay telephone that was mounted on the cell wall.

He fished in his pocket for change and found none. Beads of sweat broke out on his forehead. Then he remembered that particular phone wouldn't accept coins, anyhow. It was a special pay-phone, requiring the recipient of any calls placed there to accept a three dollar minimum charge, even for a local call. Racking his brain to remember the number of the sheriff's office, upstairs, he finally punched in the right numbers. When someone picked up on the other end, a recording kicked in telling them the call was coming from the jail and giving the caller an opportunity to state his name. That was all he had time to say that could be heard at the other end, but he could hear the guy who answered.

"Keith? Okay, quit clowning around and get finished, down there.

There's plenty more for you to do before lunch time.

Stunned, Keith tried to decide what to do. The prisoners seemed to be getting restless. They were now whispering among themselves, their eyes on him. The sweat was back on his brow. He decided to try the phone again.

"Come on, now, Keith, enough is enough," the dispatcher said. Then he hung up, not too gently.

Keith punched in his wife's number. She worked for a lawyer in town. He'd tell her the situation and she could call in on a regular line. That way, surely somebody would come right down and get him out.

"I'm sorry," the receptionist said to the recorded message. "We don't accept collect calls from the county lock-up. If you'd like to engage an attorney, you can have your jailer notify our office and we'll set up an appointment."

By this time, several more of the men were on their feet and milling about. All eyes were on Keith.

He gulped. Then his face brightened.

"Hey, guys," he said, "as long as I'm here, how about a little game of poker? Anybody got some cards?"

Somebody produced a deck, and they gathered around to play or watch. It wasn't until after the first hands had been dealt and the ante called for, that Keith remembered he had no money.

"Oops! I came away without my wallet," he said apologetically. "Will you take my IOU?"

Nobody was smiling.

Then one of the men shrugged and said, "We ain't got no money, neither. We play for anything we got—cigarettes, gum, candy bars, postage stamps, whatever."

By the time somebody came down to see what was taking him so long, Keith had lost three sticks of gum, a slightly used handkerchief, and a pair of shoelaces. In addition, they'd taken his IOU for three candy bars, five cigarettes, and a six-pack of soda-pop.

He was glad to get off so lightly.

The following week, Keith came by our store.

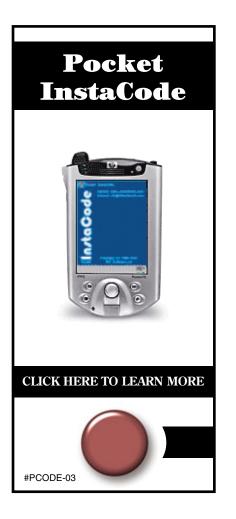
"I don't guess you'd be needing anybody to do a little part time service work, would you?

We told him we might see what we could do, and he came back to work for us evenings and on his days off

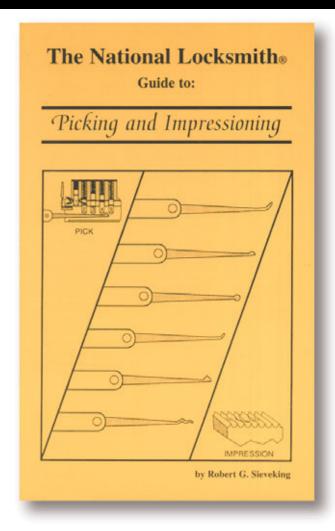
It wasn't long before he asked, "How about me working for you full time, again?"

"What's the matter, Keith," Don asked, "you tired of being a deputy already?"

"Oh, I don't know. I guess it's not quite what I thought it'd be," he said, the little-boy disappointment showing in his eyes. "They don't even wear white hats, any more."



# Picking & Impressioning



Here is the most complete book ever published on picking and impressioning locks! You will have everything you need to know about how to open almost every kind of lock that can be picked.

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#PI

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n the beginning days of ancient safecracking, there were measurements. These measurements told you how far to drill out from the dial ring or from the center of the spindle. They also mentioned angles of attack from outside the dial ring, or through the dial ring itself. Everything was measurements, measurements, and angles of attack to open a diabolical safe or chest.

You might remember those days of yesteryear. Those were the days before mini-rigs, special hard plate drills, under dial drilling, and any safe books that were accurate and helpful. Most of the old books have hit the trash. If they are not useful, they are out!

When the era of under dial drilling and attachable templates became the rage, a new era of safecrackers arose that may never have drilled outside the dial, or free handed a hole in a money chest. They literally did not know what they were missing. One of the tricks used in those days was one hole outside, many possible holes inside due to angle drilling. That type of drilling has not disappeared for me, and will not until I know every measurement on every safe for side drilling. That time will never come for me.

Measurements and dimensions again become important for easy viewing through the change keyhole. Although I will not go into detail about change keyhole reading, I will mention some speed methods that I use to determine the arrangement of

gates and hubs before actually dialing the found combination.

Let us start with a Gardall fire safe shown in photograph 1. What model safe is it? I do not know or care. I attack the lock and the safe will open. It weighed about 200 pounds with the handle below the Kaba/ILCO combination lock. This indicated to me that the combination lock was probably mounted vertical down (VD). The handle moves the bolt bar right so the handle would turn clockwise. This set up is reminiscent of the GARY safe that used the same arrangement of bolt handle and VD mounted lock. Look for simple concepts.

Photograph 2, shows the inside door of the now opened safe. There is a UL label with the designation of CLASS 350-1 HR. This means that the contents of the safe will stay below 350 degrees (F) for a period of one hour. This is not a good designation for magnetic or computer materials. Moisture may destroy these products. There is also a large hole in the back of the plate to insert a change key.

You can see the flag, or rectangular part of the change key hole is up, this means that the bolt is down. You can see this without taking off the back plate. What you do not see is the chrome label that was originally over the change key hole. You might see some of the scratch marks I made scratching it off with a modified car opening tool.

Continued on page 104



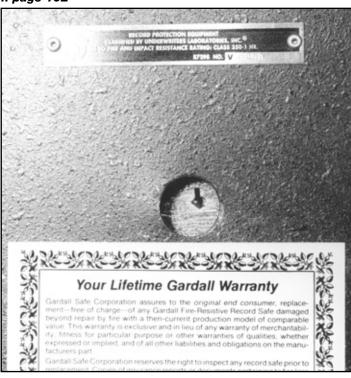
1. Gardall Fire Safe about 200 lbs. Handle CW to open.

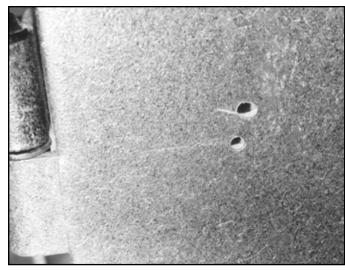
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#### Continued from page 102

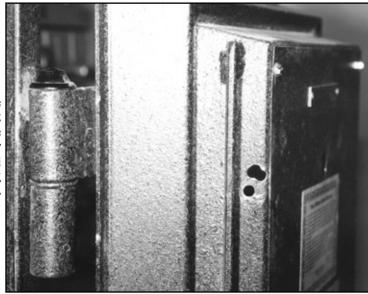
2. Inside door cover with access hole showing. Flag part of change key hole is up, so the bolt is down.





3. Bottom hole was too low to view the change key hole. Upper one was perfect after a little inside angling.





The important thing to remember when opening this safe is that there is a 1/2" gap between the back plate of the safe door to the keyhole itself. If you have a good scope, then this is not a problem. However, it is almost impossible to scratch off the label through a side hole for scope viewing when you are even with the back edge of the door. In fact, the hardest part of this job was scraping off the label, even when level with it.

You must not just know where the back plate of the door is, but if the lock is even with or below this back plate. I opted to drill for the back of the lock at 3-1/2" from the front of the safe door. I remembered that the back door plate was 4" back from the front of the door.

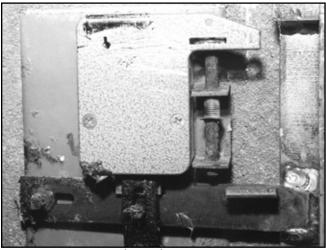
In many articles where the safecracker drills from the side, it looks easy. Sometimes I have to drill more than one hole to get it right. The first hole lets me know what I have to do for the second, or third hole. I try to use a single outside hole, but sometimes it is easier just to drill the second hole and be done with it.

Photograph 3, shows the hinge side of the safe and the two holes I drilled. This first hole - the lower of the two - was too low to adequately view the change key hole. I did manage to scrape off the highly reflective chrome sticker through this hole. With the safe lock mounted VD, the change keyhole is 1/2" above the center of the dial and spindle. I knew this and did not transfer it correctly.

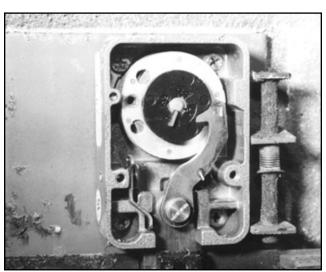
I used a modified car opening wire with a sharpened end to get rid of the sticker. The tool had a slight bend in it. I inserted the tool with the bend down into the opening between the back of the safe door and the lock. I then turned the tool 90 degrees (A quarter of a turn) so that the tension of the bow in the rod would force the tool against the back of the lock. I then did small movements against the back cover. I would raise or lower the rod slightly, and keep scraping until the sticker was removed of all the small clinging parts of the mutilated chrome label. This took at least 10 minutes to accomplish.

Once I had the change key hole in sight, I drilled the upper hole and finally got the right angle to see into the lock through the change key

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6. Only the relock trigger in the case works. The relocking device is rusted solidly in the open non-fired position.



5. Inside view of the combination lock and cover. Slot in cover extension holds up the relock bar.

hole. I will talk about what I look for at the end of the article.

Photograph 4, shows the holes that I used to penetrate the side door edge of this safe. Yes, there are three holes. Just to the left of the holes on the door is the deflector shield. This angled plate is not a deflector shield like some big security safes have to deflect drilling attacks, this plate angles into the door to keep it locked

if someone removes the hinges to pry the safe open. I was happy to miss this plate and drill into the door. The measurement is tight and 3-1/2" from the front edge of the door will do nicely. Write that down, for it is a popular measurement on many fire safes (and others) for drilling to see the change key hole.

All repairs were done with an epoxy roll. It looks like a cigar

with white stuff in the middle. Just cut off what you knead (need) and roll it out and back onto itself until a uniform light green color is obtained. Push it into the hole(s) and flatten it out. In about 15 minutes, the stuff can be sanded, painted, or even drilled and tapped. It's magic stuff that can even be applied underwater. It repairs the inside and outside of



## ProMaster 5

ProMaster 5 is without a doubt, the most comprehensive and easy to use master-key system management tool available anywhere in the world.

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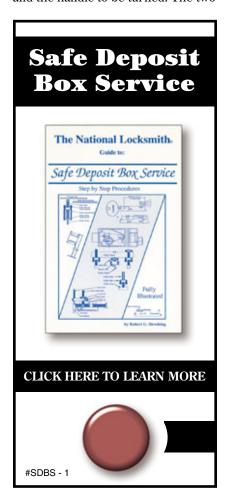
#PM - 5

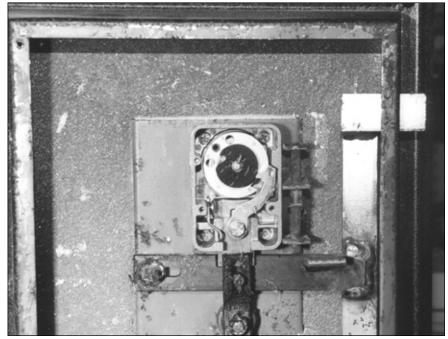
# TheNationalLocksmith.com • CLICK HERE •

safes quite well and when properly finished, it is almost invisible.

Photograph 5, shows the lock and relock set up once the back door plate was removed. This safe was stored in a wet place for three years and never opened or repaired. It was sold at auction for \$50.00. The special back cover of the ILCO 6900 series lock has a dime sized slot in it to hold the top of the relock pin up and keeps it from blocking the protrusion on the top of the bolt bar. If you are viewing this in color, then you will see that the relocking bolt is completely rusted in its fixture. Even after removing the back cover it did not fire, even with a little taping.

The relocking trigger inside the lock worked well as can be seen in *photograph 6*. The lever nose has moved into the drive cam, the fence into the wheel gates, but the bolt cannot be moved for the relocker in the lock has jumped into the hole in the bolt, made for that purpose. Using a finger to depress this relocker allows the bolt to move out of a slot in the horizontal bolt bar and the handle to be turned. The two





7. Wheels set for change key and cover to be replaced.

locking bolts on this bolt bar are rectangular and the upper bolt bar can be seen in *photograph* 7.

If you look closely at *photograph* 7, you will see that the gates in the wheels have been turned until they rest just below the lever nose. In this position, the change key hubs are aligned with the upper left case screw. This is the position to align the wheel so the back cover can be reinstalled and the wheels will be in the right position so the change key can be fully inserted and turned.

An easy tool to use for this is the change key itself. Just dial and align the gates anywhere it is easy to see them. Then insert the change key blade in the wheel gates and turn all three wheels counter-clockwise until the bottom of the lever nose stops the movement of the change key. Before putting on the back cover, check the tightness of all screws and the lock is properly lubricated.

Put the back cover on, insert the change key and set the combination to a neutral number for dialing diagnostics. Once the lock is declared fit and ready, then change the combination to the customer's numbers.

Now, let us go back to change key hole viewing. What are we looking for when we look into a change key hole? I look for the gates. If I see a change key hub or point (on LaGard locks) I add 50 numbers to get the gate. Usually with two or three viewings, one can determine the gate positions. The gates are bigger and they have an edge to them, which allows you to more easily align the wheel edges properly. When looking through the change key hole, you are using the change key index for all your number readings.

After determining the position of the three wheels through their gates at the change key index, add 50 numbers and you have the relative combination to the lock. A nice feature with the Kaba/ILCO (Precision) lock is that there is a notch at the bottom of the gates which makes aligning the openings quite easy. You can either use the edge of the gates, or the notch in the bottom to correctly line up all the wheels. It might mean adding or subtracting a few numbers from all three-wheel position to get it right. Remember, you are looking through the change key hole possibly at an angle to get all three-wheel gate edges aligned.

Side drill open the safe, repair the hole(s), scratch the sticker, and collect your money. Just to be a good guy, I also put a piece of Duct tape over the change key hole just to prevent another easy side attack. The next side driller will have a great time removing my duct tape. I just hope it's not me again.

Side drill, patch and prosper!

 $\mathbb{R}\mathbb{L}$ 

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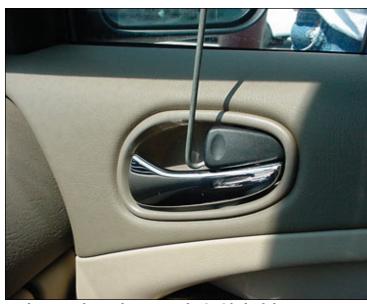


1. Closely following the design types of the Ford line, Jaguar's new S Type may just be a good look at how some of the North American influences may be shaping the new line of Jaguars to come.

3. Opening the Jaguar S type is simply accomplished using the Under-The-Window tool. To make opening easier, the window trim piece was removed. The tool is inserted directly behind the inside handle.



2. Despite the new looks, the key system is still very much Jaguar, incorporating the Tibbe designed key and locks. Incorporating transponders into their security system, keys are currently only available from a Jaguar dealer.

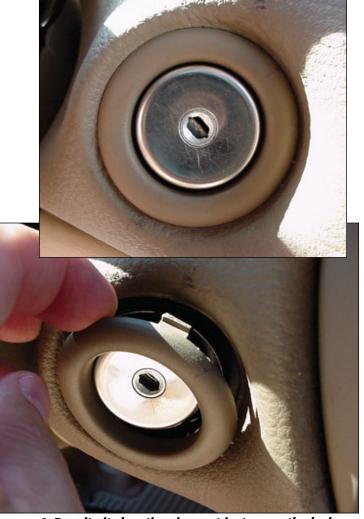


4. Then use the tool to grasp the inside lock button and unlock the vehicle.

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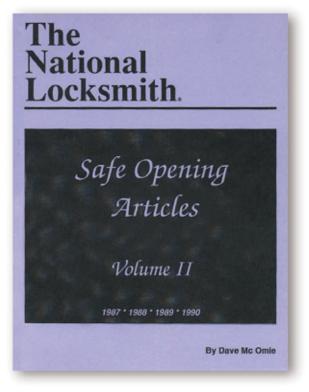
# E The ignition lock on the S Type is past of the dash

5. The ignition lock on the S Type is part of the dash assembly.



6. Despite its location, in most instances, the lock can be removed without dash disassembly. Start by removing the plastic trim ring from around the lock.

# Safe Opening Articles



Dave McOmie's original articles from when he first started writing for The National Locksmith are reprinted in this book.





7. Because the transceiver for the transponder system is located directly behind this ring, great care needs to be taken in removing this trim piece, as well as the lock.



8. Now, insert a key and turn the lock to the ON position. Inserting a 90-degree scratch awl, depress the lock's retainer.



housing.
The
hardest
part in
removing
this
ignition is
locating
the lock
retainer.
With the
lock

housing not exposed for observing, it is necessary to negotiate the tool past the transceiver ring and blindly locate the retainer.

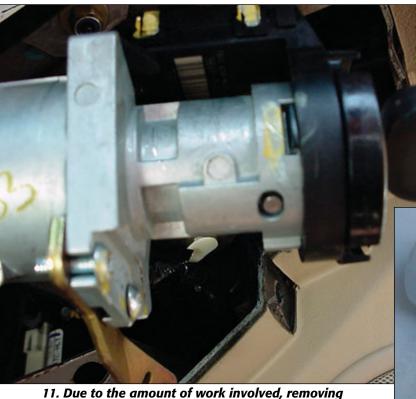


10. Located at about the 8 o'clock position, a small access hole can be seen in the transceiver ring. This is the access hole in which the scratch awl or probe is placed. Then reaching back approximately 1.5" the retainer can be found and depressed.

Continued on page 116

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Continued from page 114



11. Due to the amount of work involved, removing the entire housing is not recommended. It should be noted that if a key is not available for lock removal, either generate a key via the door lock, or, if the lock is damaged, drill the sidebar.

#### IGNITION LOCK DISASSEMBLY



12. Once the lock is removed, it can be easily disassembled.

# Safe Opening Articles 1987



Now under one cover-all the information safe opening articles by expert safeman, Dave McOmie.

CLICK HERE TO LEARN MORE

#SA - 1



13. Turning the lock over, a large plastic cam is present.





14. A small tab on the inside of the cam holds it onto the lock's tailshaft. Use a small screwdriver to lift the tab, being careful not to damage it, and pull the cam and the cam spring off of the shaft.

#### **Specifications**

Number of Cuts: 8
M.A.C.S.: 2
Key Gauged: Tip
Center of First Cut: .0868
Cut to Cut Spacings: .080
Cut Depth Increments: .020

Cut Depth Increments: .020 Notes: Dealer only transponder key.

 Spacings:
 Depths:

 1 = .0868
 1 = .245

 2 = .788
 2 = .225

 3 = .708
 3 = .205

**4** = .628 **5** = .548 **6**= .468 **7** = .388 **8** = .308

Next month we conclude this series by covering the door and trunk lock service procedures.

TNL



15. A small retaining pin is used to hold the lock plug into the cylinder. Use a small screwdriver to push the pin up and remove the plug from the back of the cylinder.

# Safe Opening Volumes 1, 2, 5



These are the classic safe books you will need to open most any safe easily and professionally.

- Volume I Modern Safes
- Volume 2 Modern Safes
- Volume 5 Very Recent Safes







The Subaru Forester is Subaru's entree in the SDUV market. (See photograph 1.) Even though the Forester is more station wagon than SUV, the all wheel drive vehicle is fairly popular in many parts of the country. You will mostly find them in northern cities and rural areas where snow is a common occurrence. In Florida you will rarely find any Subaru at all, expectably a Forester.

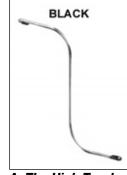
The Forester uses a linkage, which is unique to the Subaru line. Although it is a fairly simple vehicle to unlock, as long as you are using the right tool, the linkage can be illusive if you are ill prepared.

We will be using the High Tech Tools, number 47 tool to open this vehicle. (See illustration A.) Although this tool is mostly used on standard vertical linkages, it is very effective on the vertical portion of

the Subaru linkage.

The Forester is shaped like a station wagon and therefore is fairly low to the ground. This is a big plus as any of us who are forced to work on the larger SUV's have already found out. Inserting a tool in this door after comfortably positioning a wedge is no problem. (See photograph 2.)

Insert the 47 tool about half way down into the door. (See photograph 3.) The window is not



A. The High Teach Tools number 47 tool.

2. Inserting a wedge and opening tool is no problem.



3. Insert the 47 tool about half way.

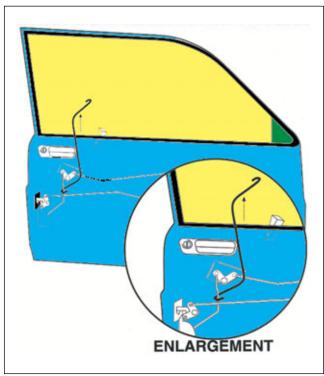
very tight and the tools slim yet powerful design makes it easy to manipulate. Now simply hook the linkage and lift. (See photograph 4.)

As you can see in *illustration B*, the linkage is easily accessible making this opening a breeze.

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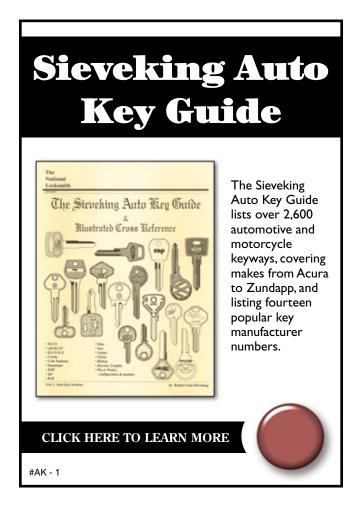
4. Hook the linkage and lift.

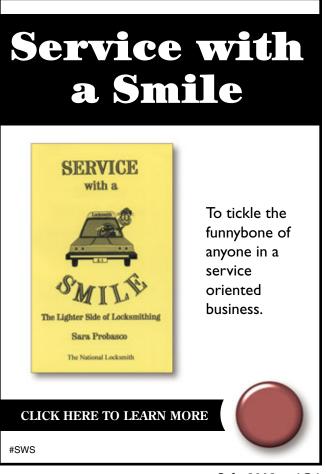


B. The linkage is easily accessible.

For more information contact High Tech Tools, 1400 SW 1 Street, Miami, FL 33135. Phone: 800-323-8324; Web: www.hightechtools.com. Circle 285 on Rapid Reply.

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# State Glad State S

ot for Sale" read the signs on the display counters. "Not for Sale!" However, at every Associated Locksmiths of America (ALOA) convention, someone stops by the nostalgia booth and has to ask if we have a product catalog, or what the price is for one of our items. It is obvious that this is their first ALOA convention, and one more time we explain that our booth displays what has been given away at previous ALOA conventions.

Ten years ago or so, some of the ALOA officers were commenting on all the wonderful giveaways at the conventions. They also remembered some of the giveaways from past conventions, and how some of these things are now collector items that the new members will never see.

Since we all know that any locksmith worth his graphite never throws anything away, some members were asked if they could bring their memorabilia collection to each show to display and answer questions of new members. So we have. ALOA furnishes the booth and counters and we bring in our cherished articles. Some of the people that have contributed over the years are; the Gunkles, the Glovers, the Kerrs, the Printzs, the LaGrecos, the Forbragds, and the Kirkpatricks.

Many, many more have offered their memorabilia for display only on condition of anonymity. They have contributed their items and their time to man the booth or they have scoured the convention floor collecting things for the next year.

The exhibitors created these items for exposure to the locksmiths, so they are eager to increase that





exposure by having their advertising efforts preserved for posterity. Some of the items on display in the Nostalgia booth are more than thirty years old, including advertising from companies exhibiting in this year's ALOA show and from companies

that have gone to that great corporate board room in the sky. We also have a copy of the program for the first meeting of ALOA and who was there.

We do have one problem though. Most of the original group has either

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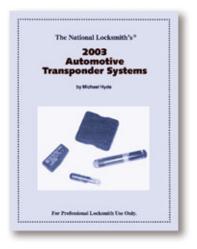
retired or passed on and we could use some help manning the booth and collecting for the future. Perhaps some of the locksmiths attending the convention who bring their spouses along might ask them to

help out if they have some time on their hands. It's a great way to learn more about our industry and meet new people.

If you do come to this years ALOA convention in Rosemont, IL

be sure to stop by the Nostalgia booth and say hi. If you have some ALOA memorabilia that you would like to see displayed, there's no better time or place. And, if you would like to spend some time in the booth, I'd love to see you.

### 2003 Automotive Transponder Systems



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If you think your vehicle has what it takes to be featured here, send photographs and descriptions to: The National Locksmith, Road Rally, 1533 Burgundy Parkway, Streamwood, Illinois 60107-1861.

Owner: ACE Lock & Key, Birmingham, AL Model: Chevy Astro



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Owner: WilliamT. Algood, Seneca, SC Model: 1997 Ford Econoline ISO

Owner: James A. Bradshaw, Woodstock, Ontario

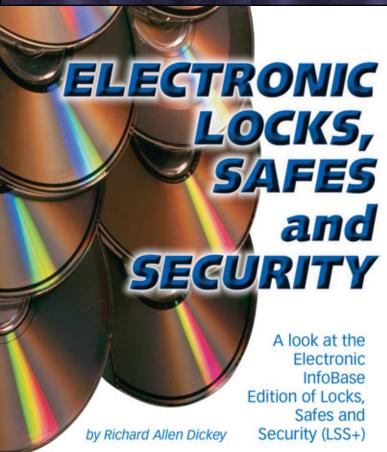
Model: 1998 GMC Safari



Owner: Mike Stanton, New Lenox, IL

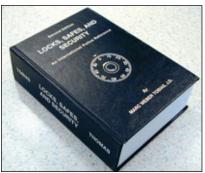
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Did you read the September 2001 issue of *The National Locksmith*? Do the words "Locks, Safes, and Security" ring a bell? If it does, and you liked what you read, you are going to love this! For the rest of you, just sit back and enjoy, but before we start, I have to include this shortened introduction.

Marc Weber Tobias is one of those rare people that can do just about anything. He has more credentials than you can shake a stick at and is known around the world by corporations and governments as a consultant and



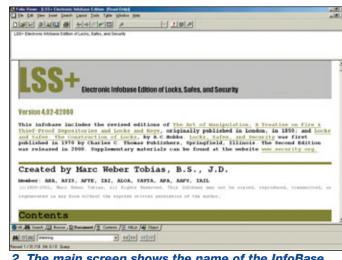
1. Locks, Safes and Security, published on December 27th 2000, is a 1400 page work of art. It covers every conceivable aspect of physical security. The book has well over a million words and around 550 photographs and illustrations.

technical fraud investigator.

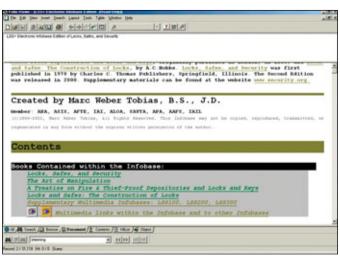
Tobias received a Bachelor's Degree in 1970 from the University of Nebraska-Omaha, and a Juris Doctor Degree from Creighton Law School in 1973. He is an attorney in Sioux Falls, South Dakota, with Investigative Law Offices, P.C.

As part of his practice, he routinely conducts technical fraud investigations and consults with corporations and government agencies throughout the world regarding the bypass of locks, analysis of design defects, and security liability issues.

Tobias has authored four law enforcement textbooks dealing with criminal law, police communications, and security. His latest book, "Locks,



2. The main screen shows the name of the InfoBase and the name of the creator.



3. If you scroll down just a little, you will see the contents of the InfoBase.



4. By clicking on the link, you are taken to the table of contents of that section.

Safes, and Security", published on December 27th 2000, is a 1400 page work of art. (See photograph 1.) It covers every conceivable aspect of physical security. The book has well over a million words with around 550 photographs and illustrations.

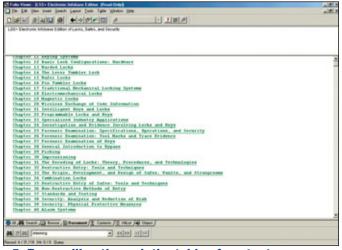
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There is a lot more I could say about Tobias, but it would take up another page of text and I am sure you get the idea that this guy doesn't just talk the talk, but can walk the walk as well!

In the September article I mentioned that the book would be available on CD-ROM some time in the future. Well it's the future and the CD-ROM is here. It is called the "LSS+ Electronic InfoBase Edition of Locks, Safes and Security" and comes on 8 CD's. There is a lot more here than just the original book. I should mention that the sum of its parts constitutes a 4 Gig InfoBase.

The electronic InfoBase edition contains updated materials for many locks that are featured in the book. In addition, enhanced graphics, audio, video, and full-text patents are included.

This additional information was collected after the book was



5. By scrolling through the table of contents, you can see that there are 40 chapters.

published. One of the nice things about the digital world is the ability to easily update existing information. All of these additions would require reprinting a book. By using the Internet, updates can be downloaded instantly. This means that your new book on CD-ROM will never be out of date.

When the program is run, the main screen shows the name of the InfoBase and the name of the

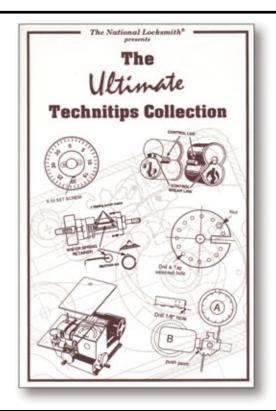
creator. (See photograph 2.) In the area around the main screen, you will find many of the tools you would expect to find in a Windows based program. There are pull down menus, buttons and view tabs. If you have used other windows based programs in the past, this one will feel natural to use.

If you scroll down just a little, you will see the contents of the InfoBase. Each underlined portion of the contents is referred to as a link. (See photograph 3.) By clicking on the link, you are taken to the table of contents of that section.

(See photograph 4.)

The table of contents for Locks, Safes and Security is 40 chapters long. (See photograph 5.) By clicking on a chapter link, you are taken directly to that chapter. I clicked on chapter 33.

At the beginning of the chapter is a list of photographs and drawings. (See photograph 6.) The ones that



# The Ultimate Technitips Collection

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start with LSS are new additions that did not appear in the book. As you can see, they are listed after the originals.

More than 4000 new images have been added, as well as new text in many chapters. Photograph 7, is a duplicate of an original Egyptian pin tumbler design. Photograph 8 is an example of an early Roman and African padlock and will also give you an idea of the quality of the photograph you can expect to find throughout the InfoBase. Extensive materials on forensic investigations, forced entry, and bypass of high security locks has also been included.

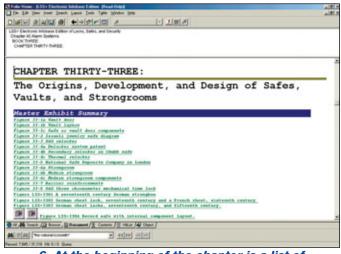
There is approximately thirty hours of audio and video, featuring some of the most recognized experts in the world. I watched over an hour of video and found it to be of good quality. It has been integrated into the text throughout the InfoBase.

The author has rewritten two of the most famous works on the subject of locks and safes, by George Price and Alfred C. Hobbs. Each has been revised and can be searched for detailed information on warded and lever locks, combination locks and time locks as well as safe and vault construction techniques.

These two books were recognized as the leading works during the industrial revolution, and present a rich description and testament of the fierce battle for security and supremacy in the lock manufacturing business.

The advanced search engine allows the instant location and retrieval of any information from all of these works. How can that be?

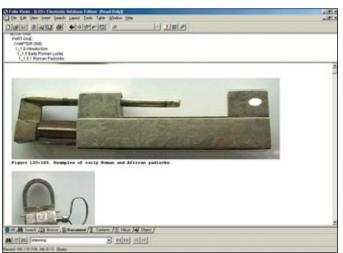
Well the search engine has recorded every single word that has



6. At the beginning of the chapter is a list of photographs and drawings. The ones that start with LSS are new additions.



7. This is a reproduction of an original Egyptian pin tumbler lock created by the British Museum.



8. As you can see, the quality of the photographs on the CD-ROM are very good.

been typed into it. This seemed to be a little hard to believe, so I did a test. I clicked on the binoculars (or press F2) located in the bottom left of the screen. This brought up an advanced query window. I typed in "The

National Locksmith" and was surprised by the results.

The word "the" shows up 12,229 times in the InfoBase. The word "national" shows up 59 times. The word "locksmith" shows up 176 times. This by itself doesn't mean very much. The really neat thing is that the phrase "The National Locksmith" shows up 5 times in the InfoBase. (See photograph 9.)

When you click "OK" you are taken to the first occurrence of the phrase. (See photograph 10.) By pressing "F4" you are taken to the next occurrence of the phrase and so on until you get to the last occurrence. (See photograph 11.) If you will notice, the phrase is highlighted and all surrounding information is displayed along with the phrase. Try that with a book.

There are three security levels, depending upon your access rights. Each security level provides extensive multimedia presentations regarding locks, forensics, safes, and bypass. In order to purchase the Locksmith or Government version, you will be required to provide proof of employment or identity. Certain restricted materials will only be available to government agencies. Now that you have an idea what is in the CD-ROM collection, what does it take to run this monster?

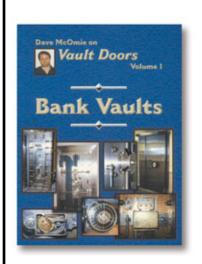
The size of the LSS InfoBase is in excess of 600 MB. That is just the InfoBase. Each LSS multimedia linked InfoBase is about the same size. The combined size of the InfoBase's are greater than 4GB. This thing is huge and needs a relatively new system to operate properly. The requirements for a PC and a MAC are as follows:

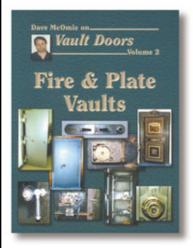
- Windows 98 or later operating system
- Display set at 1024 x 768 pixels and at least a million colors
- MAC OS 9 or X

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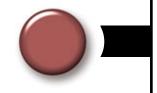
# Dave McOmie on Vault Doors Vol. 1 & 2





These openings can be a nightmare, but not when you bring Dave McOmie along with you on the job.

#### CLICK HERE TO LEARN MORE



#### Continued from page 128

- Microsoft Word
- Windows Media player version 7 or above
- Intel Pentium III preferred
- RAM: minimum 256 MB for proper operation
- CD ROM or DVD drive, 4X read minimum
- Internet connection to support embedded links within the text. (not required to use the

InfoBase)

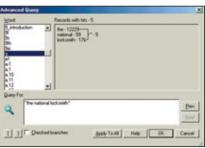
My operating system is Windows ME, my screen resolution is set at 1024 x 768 pixels with 16 bit color, but my system only has 160 MB of RAM and everything seems to run just fine.

If your display size is not set properly, the layout of each page will be incorrect, with regard to text and images. This can cause viewing problems. It is a good bet that if your system is able to run the InfoBase, your system is new enough to achieve the recommended display settings.

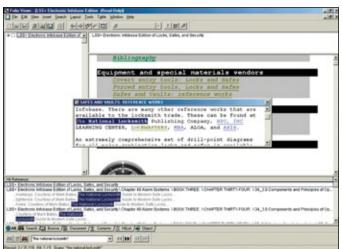
LSS+ Electronic InfoBase Edition of Locks, Safes and Security is available from two different sources. HPC Inc. will carry security levels 1 and 2. All level 3 information must be purchased through MBA USA

(Mark Bates Associates). The cost will range from around \$300.00 to \$500.00 depending on the security level purchased. If you have purchased the book, you may be eligible for a rebate when you purchase the CD-ROM set! How's that sound?

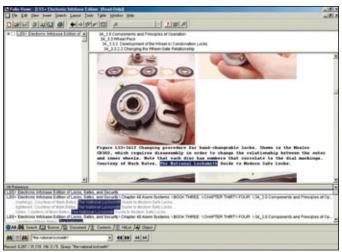
If you would like to contact the author, there are several ways you



9. To find something specific, you use a query. The query will search every single word that has been typed into the InfoBase.



10. The query reveals five occurrences of the phrase "the national locksmith". This is the first of those five.



11. By pressing "F4" you are taken to the next occurrence of the phrase and so on until you get to the last occurrence. The phrase is also highlighted for convenience.

can do it.

Marc Weber Tobias welcomes feedback from readers. His e-mail address is mwtobias@security.org. He may be contacted toll free utilizing Internet telephony or video conferencing through http://www.security.org. What would we do without technology!

# TheNationalLocksmith.com

# TECHNITIPS

# YEAR-END PRIZES



**Grand Prize**Silca Bravo Duplicator



1st Prize
HPC's 1200PCH
Punch Machine



**2nd Prize**Mas Hamilton's
PowerLever 2000



3rd Prize
Curtis 2200 Duplicator



4th Prize

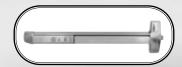
SDC Magnetic Lock,
Keypad and Exit Switch



5th Prize
Securitron 12-Volt Unlatch Plug in
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7th Prize
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8th Prize
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Aluminum Doors



9th Prize \$500 in BWD Products



10th Prize \$500 in ASP Auto Locks



11th Prize \$500 in Strattec Auto Products



12th Prize
Tech-Train "Jiffy Jack"



Sargent & Greenleaf 6120 Electronic Safe Lock



14th Prize
High Tech Tools
2000 Pro Set



<u>15th Prize</u> Slide Lock's Master "Z" Tool Set

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16th Prize

ESP Products Sampler



17th Prize

Major Manufacturing's HIT-111 Drill Guide



18th Prize

Abus Padlock's Marine Padlock Display (\$120 Retail)



19th Prize

MBA USA, Inc. Falle Pick Set



20th Prize

Baxter JV-1 & JV-5 Code Books



21st Prize

Sieveking Products Squeeze Play

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• Strattec Racing Jacket

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> A-1 Security **Products**

• ILCO Key Blanks (100 Blanks)

• Keedex "SPIN OUT" Screwdriver

• Tech Train Training Video

 Sieveking Products Gm E-Z Wheel Puller

• Major Manufacturing **Products** 

• Slide Lock's "Z" Tool **Opening Set** 

• The Sieveking Auto Key Guide

• Jet Key Blanks (100 Blanks)

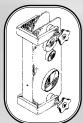
• High Tech Tools

 LaGard Combo Guard



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23rd Prize

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Framon **Impressioning** Handle



26th Prize

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Tips Start on Next Page



### Send in your tips, and win!

#### **How To Enter**

Send a tip on how to do any aspect of locksmithing. Certainly, you have a favorite way of doing something that you would like to share with other locksmiths. Write your tip down and send it to:

Jake Jakubuwski, Technitips Editor, The National Locksmith

1533 Burgundy Parkway Streamwood, IL 60107-1861

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#### **Rules & Regulations**

Each tip submitted must include your full name, street address (no P.O. Box numbers), city, state, zip code, phone number, fax number and e-mail address When sending tips via e-mail make sure to include complete address and phone.

#### **Every Tip Published Wins**

If your tip is published you will win one of the monthly prizes listed. At the end of the year, we choose winners from all the monthly tips published, that will be awarded one of the fabulous year end prizes. All you have to do to win is enter.

Prizes are arranged according to suggested retail price value.

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JET KEY BLANKS WINNER:

#### Frameless Window Car Opening Tip

With the newer, and ever more popular frameless windows on cars today, trying to wedge the window to insert an opening tool poses increased risks of window breakage.

The use of a wedge exerts pressure along a very narrow point of the window edge and sharply increases the danger of a broken window.

A method I now use, and feel is much less apt to break a window, is to employ the use of an auto dent puller. The kind that is essentially a large suction cup. These pullers are readily available at the auto parts stores for around \$3.

By applying the dent puller to the back upper area of the window, and pulling gently, It allows the insertion of a hold open wedge. The wedge should be at least two to three inches wide, made of hard rubber with the top and bottom edges thinned down slightly with no sharp corners. Of course, I never wedge the window open wider than necessary and use flat opening tools whenever possible.

Not only does this tool reduce the risk of breaking the window; it also allows me to put enough downward pressure (very, very gentle pressure) to pull the window low enough to allow tool entry.

Do Not Force It!

C. W. Bovender North Carolina



WEDGECO KEY EXTRACTOR WINNER:

#### Pin Selection Trick

When keying several different types of lock cylinders at one location to

one key bitting; I find myself continually looking up at my pin chart to find a pin, rather than going to the proper partition to pick out a .210, or a .270 pin.

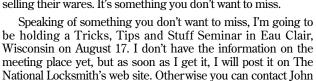
Since some of the rekeys I do may have ten or more doors, the required looking up and converting the numbers is firesome.

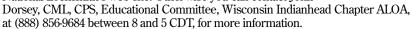
To eliminate the repetitive need to refer to the pin size chart on my pinning kit, I have made up some small numbered tabs that I can place in the proper partition of my pinning kit. (See illustration A.) The tabs are numbered from 1-9. I use old blister packaging to make the tabs and generate the numbers on my Brother P-Touch Label System.

Using Schlage as an example, I place the numbers as follows: 0-.165, 1=.180, 2=.195=, 3=.210, 4=.225, 5=.240, 6=.255, 7=.270, 8=285 and 9=.300 Now all I have to do is reach for a "1", or a "3", or whatever number I need to complete the pinning of the particular cylinder I'm working on.

#### A Few Words From Jake...

Man, here it is July already and another ALOA convention! I hope many of you that are reading this month's issue of The National Locksmith magazine are going to be in Chicago for the big show. There are a lot of classes being offered, and of course, vendors, distributors, manufacturer's and suppliers from all over the country are going to be there showing and selling their wares. It's something you don't want to miss.





I've got a couple of tips for you on new tools:

One is on the Hinge Doctor (which is not really that new, but it's not all that old either) and the other is a tool that Ralph Rowe introduced.

First, the Hinge Doctor. I'm telling you that if you don't have a set of Hinge Doctors on your truck, you're losing money! And, you're losing easy money at that.

While servicing a door in a hospital I do work for, I offered to adjust the hinge while I was there. The maintenance guy agreed and in about a minute, the sag was gone from the door and the door was swinging almost like new! In less than an hour, I had finished adjusting five doors—it took longer to walk to them, than to adjust them—and went home with a little over \$175 I had not expected to earn! I carry the Hinge Doctor on my truck all the time and you should too.

I know for sure that Hawley Lock Supply (800-398-2458) and Clark Security is handling the Hinge Doctor. If you need the name of a distributor near you call Steve at: (800) 924-5397.

While online one day, I noticed that Ralph Rowe posted rotary rasps for sale. I didn't buy any, but a friend of mine did and gave me one to try. I want to say... they're absolutely great! If you need a rasp that will rapidly tame an errant strike, enlarge an edge bore or do a dozen or so other tasks quickly and easily, you need a couple of these rasps in your tool kit. The best part is their price: \$7.50 each, plus shipping.

Ralph did ask me to mention that quantities are limited to stock on hand. Get yourself one or two, you won't regret it.

You can contact Ralph at (425) 888-3471 or by email at rlrowe@msn.com. Tell him I sent you by.

See y'all next month with more exciting stuff.

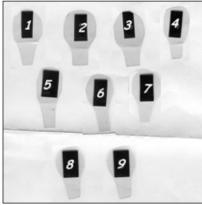


Illustration A.

The tabs that I cut out of old blister packs can be made from almost any material and the numbers can be applied with a MagicMarker or a Dymo labeler. Whatever is easiest for you.

> Reynold C. Appell Wisconsin



HIGH TECH TOOLS WINNER:

LeMan's Door Lock Trick

by Jake

Jakubuwski

A customer brought in the lock from a 1989 LeMan's and wanted me to make a key for it. Like others that I have done, the wafers were severely corroded from non-use and no lubrication, and were stuck tightly in their chambers.

My solution to the problem is to saturate the plug and wafers with WD-40 and after allowing it to work for a bit, I force the wafers out of the plug with a small screwdriver. Occasionally, I have to enlist the help of a small hammer to accomplish this task.

Once I have them all loosened sufficiently, I take one wafer at a time and rub them against an 8" Bastard Cut file. I hold the wafers of either side and gently rub them against the file until the corrosion is removed and the wafer is again showing it really is made of brass!

After cleaning each wafer, I put them back in the plug and remove the next one and repeat the cleaning process. You have to be careful with the cleaned wafers, as they will now easily fall out of the chamber.

When it came to making the key, my TNL software gave me the three missing cuts without having to progression.

This trick, used on other corroded locks has saved me from having to buy obscure wafer kits that I would seldom have need for.

David Craig Illinois



HPC WINNER:

#### Fast Rekey Trick

To speed up the rekeying of deadbolts, mortise cylinders and

key-in-knob locksets on residential or commercial properties, I suggest having plugs and keys ready for the job at hand.

I use spare plugs for each type of deadbolt, mortise cylinder and key-inknob, or other lockset that I normally carry in my service van. I obtain these plugs form either spare, non-reusable locks I have collected or purchase them from my distributor.

I cut two keys and pin the plug to those keys. I leave the key in the plug and wrap electrical tape (sticky side out) tightly around the plug to cover the pins (with the key in the plug, the pins hold the key in place) then twist the tape and put one more wrap all the way around the plug. This holds all the pins in place, prevents the key from coming out and will protect the plug all at the same time. I often write the bitting on a piece of paper and put it on a key ring with the keys.

I make up several different combinations of plugs during slow periods or when I have spare time. For example, I try to keep two plugs KA with on key in each plug and the pair joined as a set with a key ring. Other combinations are a deadbolt and key-in-knob combination or I repin two mortise cylinders to the same key and keep the set together with electrical tape as mentioned earlier.

I find that these pre-pinned plugs and cylinders really save me time on the job and allow me to accomplish more in any given day. Especially when I'm really busy.

Tom Lynch Connecticut

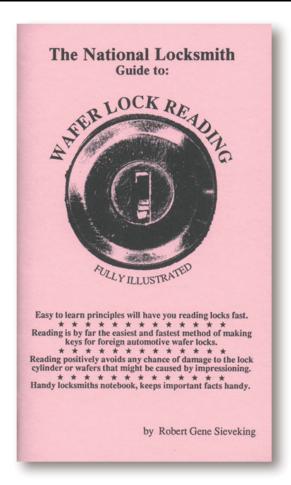


SARGENT &
GREENLEAF WINNER:
Anderson Door and

Window Tip
ed to a newer home that ha

I was called to a newer home that had Anderson windows and doors. The lock on the door had ceased to function and the customer wanted it replaced. I had

# Wafer Lock Reading



Easy to learn. No Codes needed.

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#WLR - 1

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never seen a lock quite like this one and decided to call Anderson for some help.

They were extremely helpful and sent me a completely new unit, which included the entire front edge of the door, the lock, locking bars and bolts. All at no charge since the door was not more then ten years old!

If you happen to get called for one of these doors (or their windows) and call Anderson for assistance; be prepared to give them the size of the door, the size of the glass and the age of the door. The age of the door can be determined by a number that is on the top right-hand side of the glass. In this case the numbers were CIG-21-98. I assume the "98" portion of the number represented the year 1998, which meant the door was still under warranty.

Anderson's toll-free number is (888) 888-7020.

That's another telephone number I intend to keep on file. Never know when I'll have to service another Anderson door.

Fred Spencer Pennsylvania

Editor's Note: Fred, thanks for the tip. Let me expand on it for a moment. Many door and hardware manufacturer's have extensive warranties on their products. If one of their units or the hardware on that unit fails, it is always a

good idea to contact the company for information and assistance. Often you will find as you did with Anderson, that they not only guarantee their product, but also will send out repair components at no charge to qualified individuals. Also be aware that if you can get your name placed on their approved technicians list, they will send you a LOT of their warranty work.



STRATTEC WINNER: Jackson Device Quick-fix

A customer called with a complaint that they could not lock their

door. I asked them what the symptoms were and as usual, I was told that the lock had been "acting funny" for a few days and this morning, they could hardly get it unlocked to get in the restaurant.

When I got there, I found the door had a Jackson exit device on it and the outside key trim would not retract the latch on the device. This meant that it would not allow the latch to be released to lock the door, either.

After taking the device off the door and examining the latch mechanism, I found that the post that holds the Nylon gear, which retracts or throws the latch, had cracked. The post was cast aluminum and molded as an integral part of the base of the latch mechanism.

Short of replacing the entire device, I was at a loss as to how to fix the problem

and began to look the construction of the piece over. The gear was held on to the post by a "C" clip and once removed allowed the gear to come off. Of course when I wiggled the post, the post came off! So much for that!

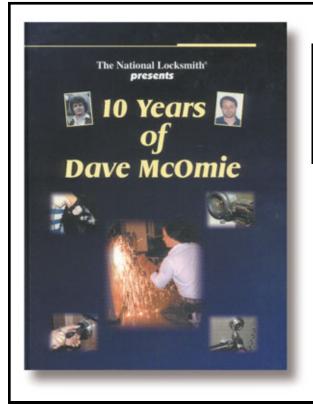
I thought about Epoxy, but discarded that idea when I realized there was nothing to epoxy the post to. Then I thought about drilling a hole through the base where the post had been molded and reattaching the gear, etc.

I carefully drilled an 11/64" hole in the aluminum base, trying to carefully allow for the nylon gear and aluminum gear alignment. Then I tapped the hole to 1/4-20 and before threading a flat head screw 1/4-20, liberally doused with Red Loc-Tite, into the hole from the bottom. I then counter sank the backside of the base where the screw would go. (See photograph 1.)



Photograph 1.

Next, I carefully drilled out the center hole of the nylon actuator gear, dropped the gear over the new post, measured the



# 10 Years of Dave McOmie

Every single National Locksmith article by Dave McOmie from August 1986 through August 1996 under one cover!

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post for length, cut it off with my Dremel Tool, then cut a slot in it for a new "C" clip.

I put the gear over the post, put the new "C" clip in the slot, reassembled everything and put the device back in service. It worked like a champ. I told the store manager that I couldn't guarantee that the repair would last forever and that if it started giving him trouble, to call me and I'd install a new device for him. That was over a month ago, so we'll wait and see.

Danny Corner Florida



ILCO KEY BLANKS WINNER: Crossbore Enlargement Trick

Occasionally we all get caught off guard and need to improvise. It happened to me recently when I needed to enlarge a 1-1/2" hole to 2-1/8" hole. I didn't have a tool to accomplish the task, so I came up with this solution. I removed the scalps from the outside trim of a Schlage Single Cylinder, B-162 deadbolt and installed the deadbolt in the 1-1/2" hole.

A 2-1/8" hole saw will fit perfectly over the Schlage trim which means that the larger hole will be exactly centered over the old, smaller hole. In other words the saw is positioned almost perfectly to give me the larger hole that I wanted.

On a wood door, I cut the hole 1/4" deep on both sides of the door and then remove the deadbolt and finished the enlargement. On a metal door, I cut through the skin on one side. Then remove the deadbolt and reverse the trim on the uncut side, and reinstall the deadbolt with the inside of the trim facing out and repeat the process. When I have cut through the skin on the inside of the door, I remove the B-162 and complete the holes, using the cuts in the skin for my guide.

This may seem a little bit cumbersome, but will get you through a tight spot and won't harm the deadbolt since you can put the scalps back on and use the deadbolt later.

Stephen E. Schultz, CML Wisconsin



#### KEEDEX WINNER: I/C Core Pinning Trick

There are any number of pinning aids and charts available to the locksmith who does I/C core work.

Many of them require writing down series of numbers on a chart to keep track on the bitting of each core.

Here's an easy way of figuring out the bitting for any single core in a given system (assuming you are not ghost keying). Determine the control key cuts and mentally add ten to each one. Next, determine the deepest cut (combined total of the master key and change key or the key with the deepest cut for a chamber, subtract that number from the control number and that gives you your control pin number.

For example: The Control Key is (from tip to bow) 9-6-7-7-3-2. If you add the requisite "10" to each number then the Control Number is 19-16-17-17-16-13-12.

Now assume that your change key for this core is (again from tip to bow) 5-8-7-6-3-4. To determine the control pin, simply subtract the depth value of each chamber from the Control Number, which gives you the following 14-8-10-10-8. Those numbers are your Control Pin numbers.

You can determine your top (or driver pins) by subtracting the Control Key Bittings from 13. Consequently, your drivers are 4-7-6-7-10-11.

Let's check that out:

 Bottom Pin:
 5
 8
 7
 6
 3
 4

 Control Pin:
 14
 8
 10
 10
 10
 8

 Top Pins:
 4
 7
 6
 7
 10
 11

 Totals:
 23-23-23-23-23-23-23

If there is a master key involved, it would not change the basic precepts of this method. Let's assume the master key bitting is 3-2-3-4-1-2. That bitting would become your bottom pins and you would add master pins 2-6-4-2-2-2. The bottom pins and the master pins equal the change key bitting of 5-8-7-6-3-4.

So, the formula for figuring the pinning of an I/C Core in your head is:

Control Bitting + 10, minus the Change Bitting= the Control Pin Number. "13" minus the Control Key Bitting=the Top or Driver Pin Value

Although the foregoing may seem a little complicated, it's really very simple and just requires a little practice. So grab a piece of paper and a pencil and figure out a few theoretical pin stacks and see how easy it really is.

Randy Main California



TECH TRAIN TRAINING VIDEO WINNER: **Handy, Hand-Held** 

Here's how to make a small holding jig to allow you to hold almost any small pin, screw, part or piece that you need to stabilize to file, cut, polish or modify without cutting, burning or skinning your fingers.

Vise Tip

I take an old hacksaw blade (actually almost any narrow, thin and hardened strip of metal will do), grind off the teeth and cut about 3" off either end. Then I

### 15 Minute Safe Opening



This book deals exclusively with round head lift out doors. Shows five ways to open a Major; three ways to find the Dog Pin on a Major; four ways to open a Star; four ways to open a LaGard style round head.

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shape the cut end of each piece and round it off to match the uncut end. (See illustration R)

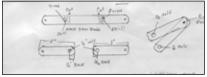


Illustration B.

Next, I rivet the two pieces together, through the holes that were already in each end of the blade and then drill a 1/4" hole through both pieces at the opposite end of the blade.

To use this hand-held vise, I simply insert a screw, pin or other small part in one of the 1/4" holes and squeeze the other leg of the holding jig against that part. The pressure is enough to hold whatever you need firmly in place while filing, grinding, polishing or modify the part is some manner.

> Charles Brown Missouri



SIEVEKING PRODUCTS GM E-Z WHEEL PULLER WINNER: Honda Key Fix

A customer could not remove the key from the ignition of their 1997 Acura CL. The key would not push in far enough to allow the ignition to be turned to the locked position, which would allow the key to be removed.

The problem was that their new duplicate key had been cut on too short a blank (the older X193). The proper blank for this vehicle is the X214 with a longer shoulder that will allow the key to be pushed in far enough to allow the ignition to be turned to the locked position.

After checking the length of the X214, I carefully used my rotary tool to shape the head of the stuck blank by cutting away the shaded areas as shown. (See illustration C.) Then I attempted to push the key in and turn it to the locked position. It still would not turn.



Illustration C.

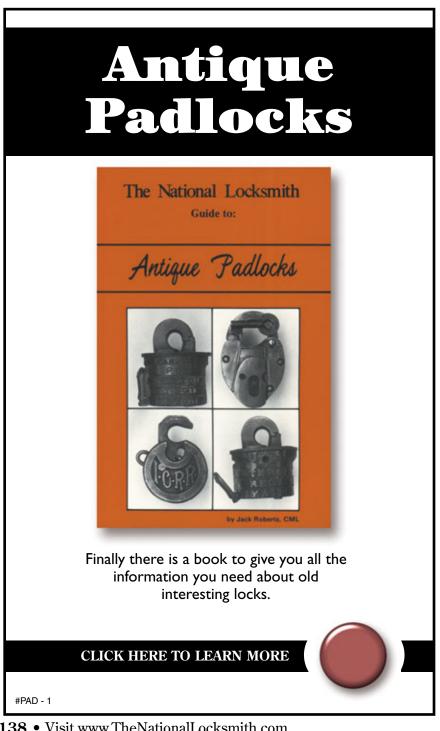
Next, I inserted a tension wrench, and while applying slight turning pressure on the wrench, I used a small plastic mallet to gently tap inwards on the head of the key. That was enough pressure to allow the key to turn, but not enough to do any damage to the ignition.

Once I had the key removed from the ignition, I simply cut another key for the customer on the correct blank, which solved the problem.

In checking the 1998 Ilco Auto Truck Key Blank Reference, the X193 was the recommended blank for this vehicle. A later issue of the Auto Truck Key Blank Reference had the proper blank-the X214 is listed.

> Dave Boemer Idaho

Editor's Note: Dave, A similar situation happened about 1987 with Honda. A longer blank was required for the new Hondas and the older blank would cause the ignition to seize as you described in your tip. With reference to the Ilco key blank reference, Ilco did, as I recall, send out notices that the reference was erroneous and informed users of the proper blank to use. As you mentioned, Ilco corrected the information in subsequent issues of their reference.



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MAJOR MANUFACTURING PRODUCTS WINNFR:

#### **Deadbolt Opening Trick**

Opening locked deadbolts, particularly Kwikset, can often look like a demolition derby. Here's an easy way of opening many deadbolts where the tailpiece has become disengaged or a key is lost and there's just no other way to get in; short of drilling out the retaining screws or the plug.

About a 1/4" off center of the keyway and about halfway up the housing, drill a 3/16" hole at about a  $30^{\circ}$  angle towards the boss on the deadbolt where the catch rests when the deadbolt is in the locked position. (See illustration D.)

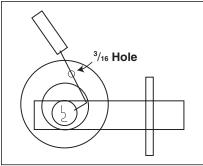


Illustration D.

Insert a small hooked tool (even a slim ice pick will do it) and flip the catch to the rear boss, thereby retracting the deadbolt and unlocking the door.

Repairs are simple: a new or used trim scalp to cover the hole in the housing, a new tailpiece and the lock is back in service.

> Harold Wogen Florida

Editor's Note: Harold, thanks for the tip. The trickiest part of this idea is to get the access hole high enough to clear the inner housing and stay low enough to keep from damaging the door. Several years ago a company was offering a tool for this same style opening, but were advocating that you drill the access hole in the door above the lock housing!



SLIDELOCK'S "Z" TOOL STARTER SET WINNER:

#### Secure Keyring Trick

I work for a school district where there is a chronic problem with keys being removed from the

many keyrings that are used by part time employees. I solved the problem with regular keyrings and a little bit of steel reinforced, two-part epoxy (The brand we use is called Propoxy).

After putting the necessary keys on a ring, I use a small amount of Propoxy to



Photograph 2.

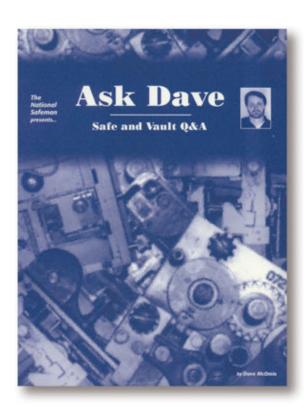
form an epoxy lock around the split area of the keyring. (See photograph 2.) I form the Propoxy into a rectangular shape and just before it sets, I use my numbering stamps to apply identification numbers to the tab. If you look closely you can see the letters imprinted on the Poxypro.

I find this is an economical alternative to the commercially available tamper-proof keyrings, because I can use my rings over and over. All I have to do is take a hammer and break off the epoxy and either add extra keys or use the ring for different keys altogether.

Jeffrey Sibley New York

။

# Ask Dave



You asked. He answered. This is safe and vault Q&A with an attitude.

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#AD - 1



by John Blankenship



part i

I TONIDA VIX 1800



The gas cap lock has been picked 90 degrees clockwise and the cap can now be removed. This lock usually picks easy with a rake, lubing the lock helps. Have a small screwdriver ready to finish turning the lock as you are picking against spring pressure. The plug will stay in the unlocked position and it is best to leave it that way during disassembly. If you need to lock it so you can remove a key, push down on both sides of the gasket at the same time.

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The code is stamped on the bottom of the gas cap in very small characters. The last three characters are the code, so in this case the code is D91.

Continued on page 142

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Remove the gasket backing ring using two small screwdrivers as shown in the photograph. It is similar to removing a bicycle tire from its rim. It is tricky to replace the ring behind the gasket during reassembly, but it can be done.



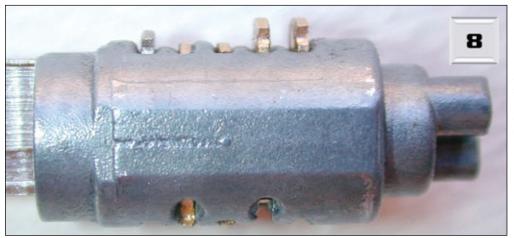
The lock assembly has been removed from the cover plate and turned over.



After the gasket backing ring has been removed, pry up the gasket and look for the three small Phillips screws that are hidden under it. Unfasten the screws and leave them; the gasket will hold them in place. Now the lock assembly can be removed from the cover plate.



Pull the plug out of the cylinder while making sure the wafers do not spring out of the plug due to it being in the unlocked position. It is best to leave it in the unlocked position because the bolts are locked in place. If you remove the plug while in the locked position they will spring out slightly and the plug is difficult to put back in. The best thing to do in that case is to squeeze the locking bolts in with your fingers until they click into the unlocked position.

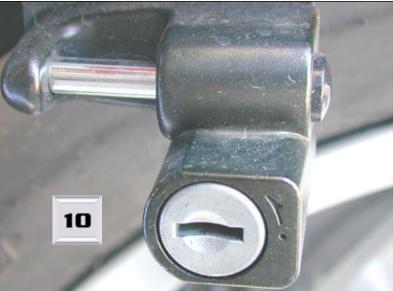


An X138 blank inserted into the keyway shows that the cuts are 21133. This lock uses the ASP A-19-101 keying kit, which is also used on Honda automobile door and trunk locks throughout the 80's.

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The helmet lock is located on the left side of the motorcycle, below the rear fender and to the rear of the shock absorber.



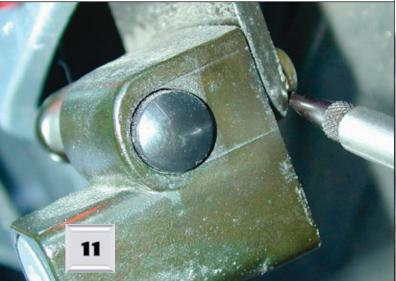
The helmet lock turns 45 degrees counterclockwise to withdraw the locking bolt. You do not need to unlock it for removal or disassembly.



After the bolt was backed out far enough, I used a pair of needle nose vice grips to finish removing it.



The helmet lock has been removed from the motorcycle. The security bolt has a round recess in it like all of the security bolts I have seen on 2001 and up Honda motorcycles.



The helmet lock is secured by one security bolt. Use a spring-loaded center punch to loosen it. Punch straight in to get a good bite and then angle it so as to back the bolt out.

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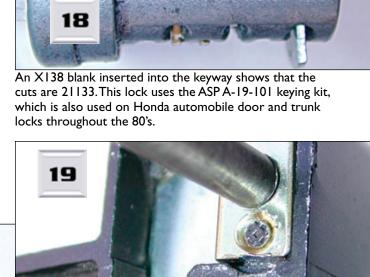


The code is stamped on the back of the helmet lock next to the bolt hole. The code is the last three characters, so in this case the code is D91.

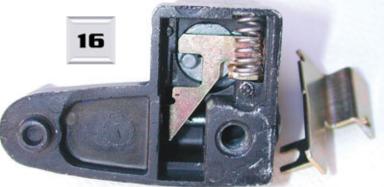
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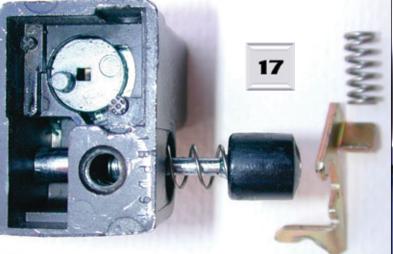
To disassemble the helmet lock, begin by prying the backing plate off over the flared post and remove it.



Reassemble the lock and use a punch to push the backing plate back over the flared post.

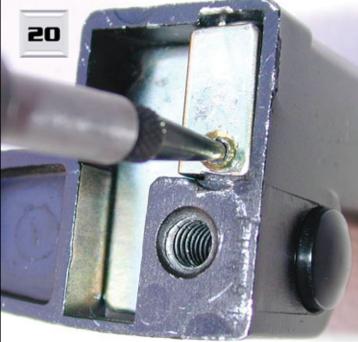


Now you can remove the return spring and bolt activator. The bolt will shoot out under spring pressure when you remove the activator, so be ready to catch it.



You can now depress the retaining wafer on the back of the plug and push it out the front of the cylinder. Be careful and do not allow any wafers to fall out. This plug was difficult to remove even with the retainer depressed. I had to use a punch to knock it out. The retainer can be depressed using a pick in the keyway, but I was unable to pull it out because it is so hard to remove. I suspect this is a security feature.





I used a spring-loaded center punch to flare the post and secure the backing plate.

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Turn the plug 180 degrees clockwise to lock the steering while the forks are turned all the way to the left or right. The top of the steering



The steering lock is attached to the rear of the fork assembly on the right side of the motorcycle.

lock is attached to its mounting bracket by two large Phillips screws. To remove the screws that secure the lock, it is necessary to place the motorcycle on a jack and disassemble the fork assembly.



Codes: A00-A99 & B00-B99 use Ilco: X84 (HD74);

Curtis: HD74; Silca: HON39; Jet: HD74-NP

**Codes:** C00-C99 & D00-D99 use Ilco: X138 (HD75);

Curtis: HD75; Silca: HON3 I; Jet: HD75-NP

**Spacing:** 1=.098, 2=.197, 3=.295, 4=.394, 5=.492

Depths: 1=.276, 2=.244, 3=.213 HPC Card Number: CMC37 ITL Number: 214

Curtis: HD-4 cam & HD-8A carriage

 Tumbler Locations: |
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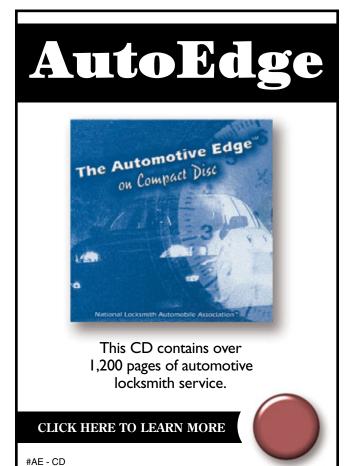
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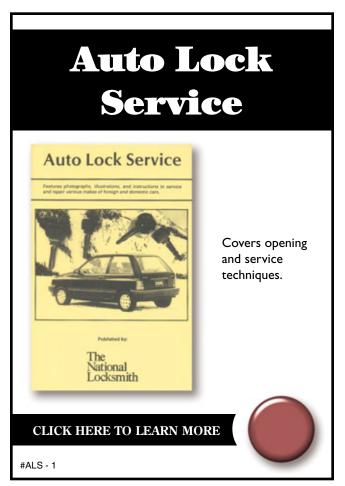
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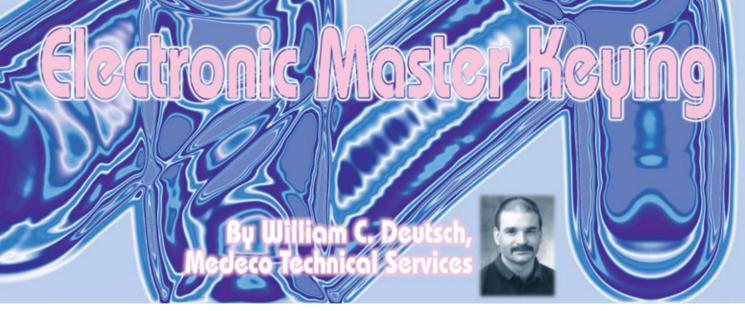
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TNL







his morning, I walked out into the carport and rolled up on the concrete, was the Roanoke Times and World News. As usual, I spread the paper all over the breakfast table, sipped my coffee, scanned the headlines, and checked the box scores. I never have to plug the paper in, download it, or upgrade

its browser. I can look at the sports while my wife looks through the Neighbors section, and if I see a funny comic. I don't have to attach it to an e-mail to share. I just rip it out and stick it on the refrigerator door. E-mail, the Internet, and all the cool technologies that I use daily have not made my newspaper obsolete. In spite of all the wild predictions about a "paperless society" that we've been hearing for the past two decades, it's just too efficient and user friendly to give up.

Locks are like that. For years, people have been talking about electronics making mechanical locks

obsolete. But the mechanical lock makes too much sense for customers to walk away from. At the same time, electronics do add new security dimensions to a traditional mechanical master key system. You don't have to choose between one or the other. The trick is learning how to combine the powers of both - and that's what this article will teach you to do. Because this is a locksmith magazine, I'll assume that you are comfortable with master keying, and focus on how to electronically

enhance the systems that you already sell using the Medeco $^{\oplus}$  "dual credential" and the Intelligent Lockset.<sup>TM</sup>

### **Dual Credential:**

To be secure, a master key system must provide key control as well as access control. Access



1. A Medeco's dual credential.

control limits the flow of traffic in restricted areas. People with no business in supply closets, computer hub rooms, document storage areas, etc. are locked out while they still move freely through their work areas. Key control protects people from the dangers caused by lost, stolen, or duplicated keys. No one should assume that they, or their property, are safe if a contractor, valet, housekeeper, janitor, guest, or anyone else can make unauthorized, untraceable key copies.

Medeco has lead the industry in developing key control policies with teeth, which is a good reason to build a master key system around Biaxial® or KeyMark® mechanical technology. Another good reason is the fact that you can seamlessly integrate electronic access control features.

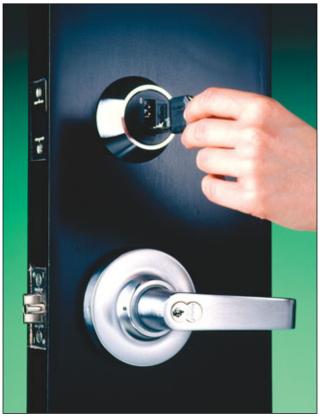
Photograph 1, shows Medeco's "dual credential." The two bitted blades are KeyMark and Biaxial technologies for mechanical access control. The black key bows contain a Dallas Semiconductor iButton® for electronic access control. (The key with the stubby dimpled blade is an electronic chip only.) The mechanical blades can be keyed into Medeco or KeyMark cylinders, while the electronic chip can be programmed into the Intelligent Lockset. The genius behind this key is that it doesn't force you to draw a sharp line between electronic and mechanical

access control—it combines them.

### The Intelligent Lockset:

Photograph 2, shows an exterior view of the Intelligent Lockset. The locking hardware is a motorized, store room function Embassy® leverset. The reader, mounted above the leverset, reads the electronic portion of the dual credential. When a valid credential is presented to the reader, the leverset unlocks. The core in the leverset handle is a mechanical override and can be used

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2. The Intelligent Lockset.

for life safety purposes. The handle can be prepped for Medeco, KeyMark, Corbin Russwin®, Yale®, or Schlage® Interchangeable Cores. It can also accept Medeco/KeyMark, Corbin Russwin, or Sargent key-in-lever cylinders.

Photograph 3, is an interior view of the Intelligent Lockset. The controller and four "AA' batteries are housed in the black box above the lever. A full-blown EAC system can cost up to \$5,000 per door to implement. The Intelligent Lockset can give you features such as time control, audit trails, and programmable relays for around \$1,000 list (including software).

### Use Electronics Instead of Cross Keying:

Armed with a KeyMark or Medeco mechanical system, the dual credential, and the

Intelligent Lockset, you're ready to electronically enhance your master key systems. You can start by eliminating cross keying. Instead of jamming a cylinder full of master pins, install an Intelligent Lockset on vestibule, or common area doors. "Cross keying," according to Jerome Andrews, "reduces system security and the number of available combinations. It should be discouraged whenever possible." Unlike a mechanical cylinder, the Intelligent Lockset is just as secure with 1 key as it is with 1200. And any user's key can be removed from the system without re-pinning.

The next time you run into a situation that you would normally maison or cross key, ask yourself if the Intelligent Lockset is not a higher security option.

### Use Electronics to Add Audit Trails:

A mechanical lock tells no tales. When someone uses their key, you have no idea who or when. And most of the time, who cares anyway? However, there are situations where an audit trail is essential for high security. Some of these areas are stock rooms, any room used to store narcotics, and document control

# **AutoSmart**<sup>TM</sup>



With almost 900 pages these are the only books you need to service virtually EVERY car on the road!



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3. Interior view of the Intelligent Lockset.

rooms. The Intelligent Lockset will store 800 transactions in memory. Anyone who enters—or attempts to enter—a door will be recorded. The next time you survey a site, look for the doors that need audit trail and install electronics instead of mechanical cylinders.

## Use Electronics to Add Time Control:

Say you're designing a system for an apartment complex. As you walk the site with the customer, she mentions that the superintendent locks the laundry room every night because the tenants upstairs complain about the noise. This door is begging for electronics. You can bit the blade of each tenants key to their deadbolt, and then program the electronic head to open the laundry room from 7a.m. until 11p.m. only. Your customer is happier and the tenants sleep better. All because you design electronic master key systems.

### Use Electronics for Fast Re-Keying:

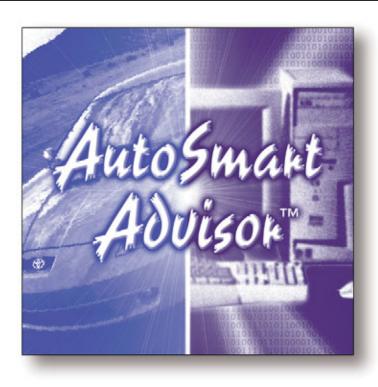
We all know the situation. A key is lost, and a property owner wonders if he should re-key; should he punch a hole in the budget or leave a hole in security. With electronics installed in critical locations, this is not a problem. If a key is lost, you delete it from the system at no cost. Fast re-keying helps with administration as well. Go back to our apartment house

example. Suppose the customer had an exercise room that tenants pay dues to join. An Intelligent Lockset and a dual credential would allow you to program their apartment house key into the exercise room entrance. If their dues lapse, the key could be easily turned off and turned back on later.

### Summary:

The goal of any master key system is to control access. At the same time, you need to protect against unauthorized duplication. A mechanical system with a solid, enforceable key control policy is still the most secure, cost-effective basis for access control. But electronics enhance security. Keep this in mind when you do site surveys. You can offer capabilities far beyond straight mechanical systems without venturing into the cost and complexity of full-blown EAC systems.

William C. Deutsch is Technical Support Engineer for Medeco High Security Locks. For more information, or to comment on this article, you can reach Mr. Deutsch at EAC@Medeco.com.



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by Tony Blass

t seems a short twenty-seven years ago that I started my locksmithing business. I had dreams of owning a fleet of vans and barking out orders as I sat in my

reclining leather office chair getting fat and stupid, with my only exercise being the energy I expended stacking up the piles of cash coming in from my vast home security empire. Well, I got the fat part down, but I am still working on the rest.

Actually, in truth, I did end up making a fair amount of money. This money was then cleverly invested and now amounts to a sizeable fortune. Unfortunately for me, this investing was done by my ex-wife, after receiving her generous settlement in the court proceedings. I, personally, now drive a 14-yearold Chevy station wagon, held together with duct tape and static electricity, and still have a long career to look forward to, but I am very happy for my ex. Please pass the Valium.

Anyway, during the course of these events, I have had the opportunity to hire and interact with many employees, some of them with quite fascinating ideas on what it means to be an employee. Could you make that Valium a double? Now, this is not to say that there aren't many excellent employees out there. I have even had a few myself. It's just that most of these good ones seem to have an uncanny ability to generally not be around when I am looking for someone to hire. As Howard Cosell might have put it, there seems to be a tremendous dearth and paucity of good locksmiths available in my area.

Some of this, of course, was my fault. I was not an experienced employer. I did not offer the structure and guidance my employees needed. Being older and wiser, I now have my employees sign the following behavior agreement, just so they know what is expected of them:

I promise, as an employee of Abco Lock and Key, I will NOT do any of the following:

- 1. Go on a 7-day drinking and drug binge without first notifying my employer.
  - 2. Set up several appointments with customers, and then not show up because of the Charles Bronson movie marathon on Channel 36.
    - 3. Perform any felony out of the service van without at least covering the license plate first.
    - 4. Commit any act of assault and battery on any Abco customer, without first counting to ten.
- 5. Sell the tools and equipment in the van at the local flea market.
- 6. Run the van into anything that has the ability to hire a lawyer.
- 7. Not show up for work and then disappear off the face of the earth, without first leaving a suicide note.
- 8. Perform any job requested by anyone residing in a mental institution, unless they pay cash up front.
- 9. Order meat through the U.S. mail for your personal use, then charge it to Abco Lock and Key under the heading of "pencil repair expense."

In addition to posting this list, I have created the following form letter, which I am now going to use when my sub-par employees ask me for

a letter of recommendation for their next employer:

Mr. \_\_\_\_\_ worked for Abco lock and key for approximately l year, even though he was on the payroll and premises for 3 years. With better work habits, more skills, and some

therapy, Mr. \_\_\_\_\_would make an excellent employee. He sets low personal standards and then consistently fails to achieve them.

You must keep in mind that Mr. \_\_\_\_is a human

being, otherwise you will find yourself trying to water him twice a week. If you stand close enough to him, you can hear the ocean. Some drink from the fountain of knowledge; he only gargled.

Sometimes Mr. \_\_\_\_\_ acts as though he is in possession of a full six-pack, but seems to lack the little plastic thing that holds it all together. However, he occasionally works very well, when under constant supervision and cornered like a rat.

Sympathetically yours,

\_\_\_\_\_ Owner, Abco Lock and Key

Of course one of the problems that we face in the workplace is that employers and employees are usually working at cross-purposes to one another. As an employer, your basic

motivation is to get as much work out of the employee as

you can, so that you don't
have to spend as much
time screwing things up
on your own. Now,
the employees
motivation is to expend
as little energy as possible,
while still achieving the goal of

making the employer go completely out of his mind.

Even just interpreting a simple phrase in the language, employees and their bosses come up with totally different interpretations. As an example, when I say to an employee, "I'll see you tomorrow," what I mean is, "I intend to utilize my optic nerves to transmit an image of you to my brain, in precisely 16 hours, at this exact same geographical location.

When an employee says, "I'll see you tomorrow," what he means is, "I think I will go hide in a swamp and see how long it takes you to find me."

Just for fun, let me describe of few of those who have worked me. Let's start off with an ex-employee we we'll call "Art," mainly because that is his name. On one particular day, after Art had used the service van, I noticed a four-inch round hole in the workbench. When I asked him what had happened, he said that one of his tools had "slipped" while he was working. "It Slipped?" I asked, "What were you trying to do, fend off a grizzly bear?"

Another time he came in and told me not to try to open the side door on the van, because it fell off and he just taped it back on.

I asked Art, "Can you excuse me, I have to go look into the bathroom mirror to see how stupid I must look."

"So it fell off?" I said.

"Yes," he said.

"Art..., hair falls off. Leaves fall off. Van doors don't fall off," I stated.

Sticking to his story, I was asked to believe that I was party to the first and only case of spontaneous detachment in automotive history. And they say miracles don't happen.

I asked Art if perhaps I should provide him with some Kryptonite underwear, so as to possibly tamp down some of his superhuman powers.

Then there was another employee, whom we shall call "My nephew Dave," who makes Art look like a 98 pound weakling. Dave had the same amazing powers as the famous Russian Psychic, Uri Gellar. He could break things without even being in the same room as them.

Having Dave use your tools was like having a Samurai Swordsman perform your heart by-pass operation.

Dave should actually work at Underwriters Laboratories. With him there, they would not have to test things 100,000 times to see how long it took the item to break, he could do it the first time and save all that trouble. A typical conversation with Dave would go like this: "Hey Dave, who broke my cordless drill?"

Dave would say, "It wasn't me, but I will pay for half of it if you want."

Sometimes when I would find a broken tool, I would actually believe Dave when he said he didn't do it. The reason I believed him is that I am convinced that many of those tools just broke themselves out of fear when Dave would approach them. I was thinking of sending a letter to the National Weather Service, suggesting they name a hurricane after him.

Dave has since gone on to start his own successful business. He probably buys Craftsmen Tools because they come with a lifetime guarantee, although I am guessing that thanks to Dave, they will change that policy soon.

And then there is the ineptitude. It's amazing how many prospective employees present themselves as experienced locksmiths and then end up having about as much mechanical aptitude as the navigator on the Exxon Valdez. I have in mind here an individual named Taylor, who we will call "Haliburton," so as not to offend him.

Haliburton had trouble nailing down some of the less complicated aspects of locksmithing, such as the concept that you must go counterclockwise to remove a screw, or that it is a lot easier to get out of the van if you release your seat belt first. Haliburton eventually inherited half a million dollars. I don't know who was happier, me or him. When he showed hesitancy at retiring from locksmithing, I told him, "Go, go now while you can, before you end up a broken shell of a man such as myself."

I did learn something from Haliburton though. One day, as I was sitting in the passenger seat watching him try to parallel park, I learned that I would rather have boiling chicken soup poured down the back of my pants than watch someone else try to drive my van. After his fifth attempt at getting into the parking space and still finding



himself five feet from the curb, I asked Haliburton if he could stop the van for a second so I could get out and ram my head into a fire hydrant. Needless to say, the trip back home was a little chilly.

I actually liked Haliburton, who had a very good sense of humor, and I don't expect you to believe this, but he is now a highly respected and sought-after Scottish Dancer [kilts and all]. Truth is stranger than fiction.

Then there was another employee who we will call "Jimmy" instead of Bob. Jimmy had a fondness for smoking the Ganga. This would cause him to forget things. He made me feel like I had a starring role in the movie "Groundhog Day," because I had to explain to him everyday, the same things that I had explained the previous day, AND the day before that.

When I finally fired him, I was afraid he would come in the next day, having forgotten that I had fired him at all, and I would have to do it all over again. Fortunately, he did not come in the next day, but I think that was because he probably had forgotten that he ever worked for me in the first place.

Then I hired Barry, which turned out to be the biggest mistake I have made since I bought that case of surplus cranberry beer on sale at the local auto parts store. Barry was hooked on the three C's: coffee, cigarettes, and coke. And we are not talking Coca-Cola here. This made Barry the whirling dervish of locksmiths. He thought he was fooling me about his addictive habits, but he didn't realize that I had gone to college too, and I knew the signs. It was quite amazing to see someone who could wear out a pair of shoes in just one day. He was so wired that he would occasionally miss his mouth and poke himself in the eye with the filter of his cigarette.

I unwisely allowed Barry to take the van home to do evening jobs with it. One morning I noticed that the odometer had an additional 400 more miles on it, even though he had only done one local lockout job. "What did you do Barry, take the scenic route through Tierra Del Fuego?" I asked.

"Oh, I had some business to take care of in the State of Nevada," was his response.

I finally let Barry go after discovering he had initiated what we shall call his own "unauthorized profit sharing program."

It's too bad to, because he was quite an amazingly knowledgeable locksmith. He could do complex master key systems, open locked safes, and fit keys to late model cars, sometimes all at the same time.

Early on in my career, I would always feel bad when I had to fire someone. I would make-up a reason for firing that person, that was as obscure as possible, so as not to hurt their feelings. For example, I told Mr. Ganga-head that the Social Security Administration had just informed me that my retro-active future employee compensation dispensation structure was insufficient to properly co-exist with my declining depreciation aperture, therefore, I would face deportation to the country of my grandparents origin if I did not immediately fire all my current employees (which, at the time. included only him). He bought it. Well, his actual response was, "I might be a little late tomorrow, my cat has hairballs." But eventually he understood.

Later on in my career, when my attitude had hardened a bit, my employee termination process became a bit less compassionate. When I fired Barry the midnight wanderer I simply stated, "You're fired. And if your mother and dog were here, I would fire them too, just for being associated with you."

One time, I fired someone who had not even started working yet. Steve, who we will call Dillingham, had spent several days convincing me what an excellent employee he would make. On his first scheduled work day he did not show up. Ditto for the second and third. When I finally called him, he answered on his cell phone and, in a sullen voice, said that he was in the state of Oregon trying to find his girlfriend who had just broken up with him. I advised him to come home, take what was left of his self-respect, put it in a very small envelope, and hide it somewhere in his apartment where his girlfriend could never find it.

Then there was Jerry, who we will call Randall. Randall was happy to work, as long as it did not interfere with his lifestyle, which mainly involved not working. When I finally convinced him to actually go out on a job, he insisted on bringing his rabid German Shepard in the van. I asked him if the dog was friendly and his reply was, "Oh he's very friendly as long as people don't get near the van, because then he will tear their arms off." I asked Randall if he knew how to spell "liability insurance".'

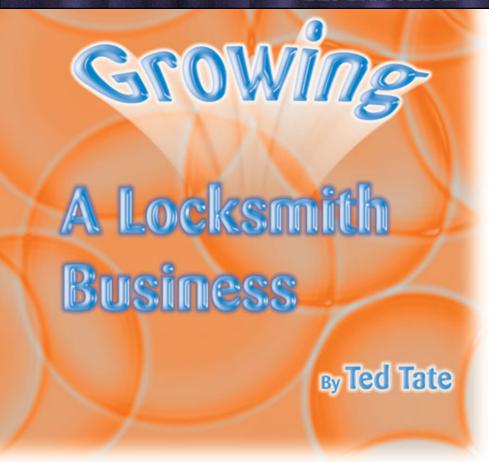
When he applied for the job, Randall claimed that he had owned his own shop for 15 years. I assumed he was talking about a locksmith shop, but in retrospect, judging from his abilities, it was more likely a barber shop, or perhaps a second-hand clothes shop. But hey, I wish him all the luck in the world. He will need it.

Then there was Crazy Billy, who we will call Crazy Billy. He may not have been much of a locksmith, but he sure was crazy. He had the kind of look in his eyes that made you want to hide your wife, children, and silverware. The only reason I hired him was because he took offense when I asked him if he was an experienced locksmith. I took that to mean that he WAS an experienced locksmith.

It turns out he just took offense at everything. In the three days that he worked for me, Billy butchered more locks and offended more people than I did during the whole week I was on kidney-stone medication. One customer requested not only that I keep him away from her house, but that I should also check the public records and see if maybe he is due to be extradited to another state or has violated his parole or something.

After I fired him, Billy did the only logical thing he could do, which was to start his own locksmithing business. This is a good thing, however, because it has made the customers in my area appreciate me all the more. I am sure, however, that locksmithing legislation will soon be introduced in our state that will undoubtedly be called "The Billy Laws."

I guess what goes around comes around though. Thirty years ago, when I worked for the City and County of San Francisco in the accounting dept, I did not exactly win any employee of the months awards. In fact, my guess is that they are just about now finishing up the job of correcting the mistakes from my tenure.



rowing a locksmith business isn't easy, it requires planning and hard work. Some folks start out in this business as a one person operation and never change from that. Thirty years later they are doing pretty much the same thing, living off their yellow page ad and referrals. If that's comfortable for someone, I have no problem with it. However, there are some who would like to grow past that, to own a business that employs others and takes them to a higher personal income level than would be possible working by themselves.

If this is to happen, then the locksmith must learn new skills in managing others, in sales skills and in good customer relations. Running a business with employees is a whole lot different than a one person business with perhaps a few independent contractors here and there.

If this fits you, then here are some practical ideas to consider:

# Get Both An Accountant And Quickbooks

Quickbooks is the leading computer software accounting system for small businesses, and to my thinking, worth its weight in gold! Using it will allow you to keep day to day track of your business with very little effort from you.

However, nothing beats having a good accountant when you need advice. In a business, nothing is black and white, just all gray. The tax laws change faster than you can change your shirt. Total doit-yourself leaves too much room for error.

An accountant can help you make key decisions, can help you determine if you are charging enough to make a profit, can alert you to tax law changes, can help you fill out tax forms properly, can help you in the event (God forbid) you get audited.

My suggestion is to keep your own set of books on a program like Quickbooks (which saves money) and pay an accountant to review your work, assist with tax form preparation and act as a business consultant.

#### **Learn to Delegate**

The minute you hire the first employee you must be willing to delegate. Any task you do repeatedly must be delegated out. As the manager, save your creativity and energy for the things you can't delegate.

Too often people think, "By the time I show someone what to do I can get the task done." What they don't consider is once you've trained someone to do a task, you have free time from here on to focus on growing your business. When you do a series of tasks repeatedly, a certain part of your business day is wasted repeatedly. Doing bank deposits, getting supplies and all the other day to day jobs can be delegated.

#### **Learn To Be A Salesperson**

In a small business it's almost impossible to hire good salespeople. The job market is tight and large firms can offer people substantial perks a small business can't even consider.

Have the courage to contact larger companies and institutions in your area, introduce yourself and your service. Let them know you are seriously interested in their business and focus on the great service you render. Don't go in offering cheap prices or lowballing. Additionally, don't go in making promises you know you can't really keep. That's a fast way to lose good accounts. It's better to pass on accounts with needs greater than your present abilities. People will respect your honesty and you leave the door open to return as your business grows.

They may say price is important, but remember, it's not their money they are spending. What they really worry about more is choosing a vendor who does lousy work and it makes them look bad. Buyers in large organizations are smart enough to understand that in order to take care of their needs a vendor must earn a profit. They are usually wary of people lowballing.

Don't overcharge, but do make a profit so you can afford to give them the best service they've ever received from a locksmith. That, in a nutshell, is the secret for a small operation to service a much larger organization. Fair prices and great service.

# Have Courage To Go For The Larger Accounts

So many small business people are uncomfortable calling on big accounts, yet if you want to grow these can be a gold mine. Some worry they don't qualify in some way. Purchasing agents in large organizations understand most of their vendors will be smaller than they are, they are always focused on two things. First is the vendor's ability to do the work. Second is the vendor's commitment to quality and service. If you can measure up on these two points, go for it!

# Make Customer Service Your Top Goal

Some locksmiths resent someone complaining, they hate callbacks. That only works if you have an unlimited supply of new suckers to work with each day.

If you want repeat business, especially from large organizations, then welcome callbacks as an opportunity to prove just how great your service is.

If people are upset, smile and tell them you'll do your best to get things right. If there are additional parts or repairs not covered under any guarantee, be gentle on how you charge them. Additionally, don't start the blame game and refuse to accept responsibility for any errors you committed. If it is all their fault, they did something wrong, tell them without being insulting or rude. In other words, treat them as if it were your mother, living alone and not fully understanding how things work. I will tell you I have never, ever regretted giving customers better service than they expected (and sometimes better service than they deserved).

Creditability in business is everything, and you'll find over the years that if you work hard at doing the right thing by your customers, you'll have people you don't know decide to do business with you just by your reputation alone!

#### **Get Educated Where You Need It**

A lot of small business people are self taught, they sometimes find themselves at a disadvantage with competitors who have more education. If this is an issue for you, there's a choice. You can continue to



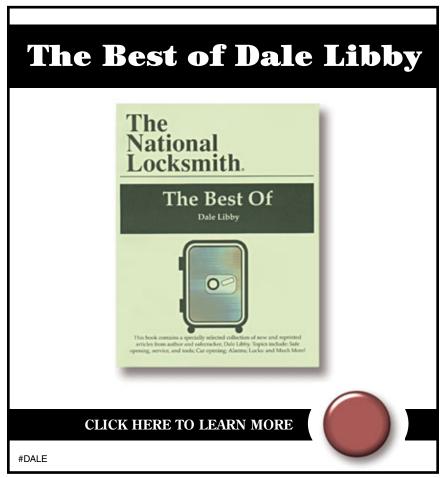
struggle and hope for the best, or get off dead center and get additional education in areas that can help you.

Don't understand accounting basics very well? Take a class in programs designed for non-accountants. Having trouble making sales calls? There are classes in selling skills. Trouble managing your time? Time management classes will be a real eye-opener. Feel people are getting the best of you in business deals? A negotiation class will make a big difference.

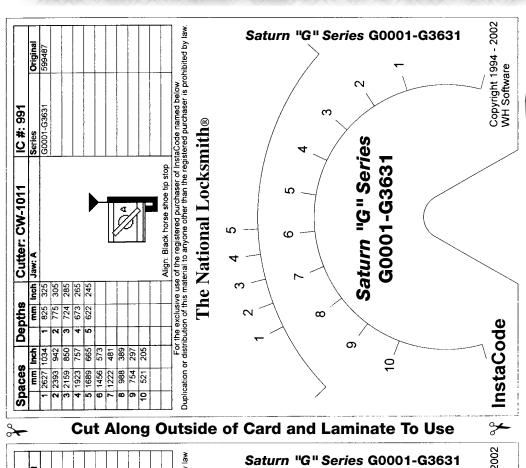
Most universities and colleges offer classes both day and night in

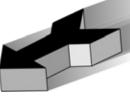
what is called "Continuing Education" or "Adult Education" or sometimes, "Non-Credit Education." In addition, some high schools offer them. Call all those in your area and ask for their catalog of programs. You'll be amazed at the kinds of valuable information you can learn in your spare time.

(Ted Tate is a nationally known author and trainer. His exciting seminar on "Power Sales Prospecting" is one of several he gives at in-house sales meetings and conventions nationwide. He offers additional free sales success tips at his website: www.trainingexpert.com)



# FREE Code Cards! COMMENTED THE National Locksmith®

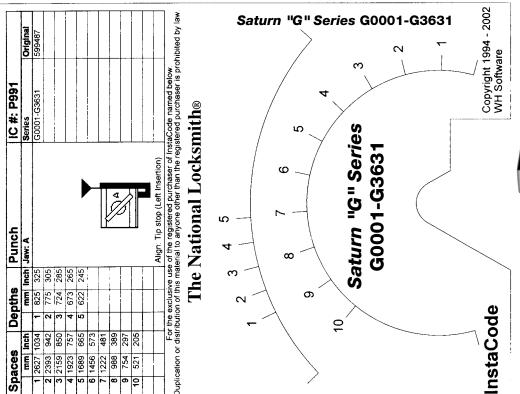


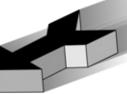


# BONUS Code Card

For the 1200CMB™

Flip 'em
over for
Silca,
Curtis,
Framon,
A-1
and
ITL specs!





# Code Card For the 1200PCH™

Courtesy of INSTA-CODE 2002™ from The National Locksmith

## the online heNatio

Saturn "G" Series G0001-G3631	Series	G000	)1-G3631
TO INDOCIME			
HPC: N/A	Z	Cutter: N/A	N/A
Vice: N/A	N/A		
ilca Unocode –			

DSD: N/A	HPC Codemax™	Vice/Adapter	UnoCode Card No.: N/A	Silca Unocode ——	V. Ca
N/A		Z/A	N/A		3
Jaw: N/A					
N/A					

Cutter: N/A	DSD: N/A	HPC Codemax™ —	Vice/Adapter N	UnoCode Card No.: N/A
I/A	I/A Jaw:		N/A	I/A
	N/A			

HPC Co	HPC Codemax™				
		N/A	Jaw:	N/A	
	Cutter: N/A	N/A			
	Cam Set:	N/A	Carriage:	je:	N/A
	Clipper:	Z/A			

Framon		
	Clipper: N/A	
	N/A	- 45
		יים ועטיי
		-4//

Key Clamping:	Block #:	Cut To Cut Spacing:	Cuts Start At:
Key Clamping: Lay tip stop clip flat against left side	3 Depth Increment: .020	.092	.216 Cutter: FC9040

ë	.092
#	3 Depth Increment: .020
ب	Lay tip stop clip flat against left side

		ing:
clip.	of vise, then tip stop key against	Lay tip stop clip flat against left side

Punch And Die:	Quick Change Kit:	A-1 Pak-A-Punch™ ——
N/A	N/A	

7

ITL Manufacturer ID: N/A

Saturn "G" Series G0001-G3631  HPC 1200PCHTM HPC: N/A Punch: N/A  Silca Unocode UnoCode Card No.: N/A Vice/Adapter N/A HPC Codemax <sup>TM</sup> DSD: N/A Curtis Cam Set: N/A  Carriage: N/A	SZ ZZ Z	Punch: N/A  Jaw: N/A  Carriage:	9e:   NA   NA   NA   NA   NA   NA   NA   N	<b>8631</b>
DSD: Cutter:	N N		N/A	
	N N	Carriage	9.	N/A
Cuts Start At: Cut To Cut Spacing:	.216 .092		Cutter:	Cutter: FC9040
Block #:	-ω :	Depth Increment:	ement:	.020

]	į		A-1			
	Punch And Die:	Quick Change Kit:	A-1 Pak-A-Punch™ —			Key Clamping:
	nd Die:	ge Kit:	   	clip.	of vise,	Lay tip
	N/A	N/A			then tip stop key against	Key Clamping: Lay tip stop clip flat against left side

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# KEY CODES

# Saturn "G" Series G0001-G3631

Manufacturer: General Motors	Spacings:	Depths:	Framon #2:
Code Series: G0001-G3631	1 - 1.034	1 = .325	Cuts Start at: .216
Key Blank: Strattec: 599487	2942	2 = .305	Cut to Cut Spacing: .092
Number of Cuts: 10	3850	3 = .285	Block #: 3
<b>M.A.C.S.:</b> 2	4757	4 = .265	Depth Increments: .020
Key Gauged: Tip	5665	5 = .245	Cutter: FC9040
Center of First Cut from Tip:	6573 7481		Key Clamping Info: Lay tip stop
1.034	8389		clip flat against left side of vise,
Cut to Cut Spacings: .092	9297		then tip stop key against clip. Set
Cut Depth Increments: .020	10205		first cut @ .216.

	G0033	2423553221	G0066	2122454233	G0099	1344535322	G0132	3312445343		Contin	ued on	page 171
	G0032	3453232121	G0065	1224544534	G0098	3112354422	G0131	4353223531	G0164	1354232324	G0196	3311224533
	G0031	1124424531	G0064	2321234533	G0097	1135531342	G0130	2121355344	G0163	4331324544	G0195	2135442313
	G0030	3223543113	G0063	4342135543	G0096	2123124544	G0129	3344531121	G0162	4431354323	G0194	4313544542
1	G0029	3135454234	G0062	1244353213	G0095	3454213221	G0128	2112354231	G0161	1124353223	G0193	3112453131
	G0028	4354433123	G0061	1335532344	G0094	1332343531	G0127	2113535324	G0160	3345431122	G0192	4345421324
	G0027	4243134544	G0060	4243355331	G0093	2135345311	G0126	4211354232	G0159	1232353433	G0191	4244334531
	G0026	2244531324	G0059	2445313344	G0092	4423224531	G0125	1323544234	G0158	3435321342	G0190	2242353213
	G0025	4344245321	G0058	1343553423	G0091	2454543134	G0124	3123545344	G0157	4244531244	G0189	2335421242
	G0024	4224544213	G0057	4334324531	G0090	1245354311	G0123	2454221343	G0156	2454233134	G0188	4335454212
	G0023	2311353344	G0056	2354312424	G0089	4235434431	G0122	4312454212	G0155	3442123542	G0187	4353345421
	G0022	3353534211	G0055	3231235443	G0088	2113353544	G0121	2243543421	G0154	3134354322	G0186	3453211344
	G0021	1245323531	G0054	3113345421	G0087	4233544231	G0120	3453134423	G0153	4423355312	G0185	4331344542
	G0020	4212353321	G0053	1245431234	G0086	1322335423	G0119	2212124534	G0152	3211335334	G0184	1354424244
	G0019	2431323531	G0052	4332345321	G0085	2453313223	G0118	3133534423	G0151	3345332211	G0183	1245343243
	G0018	2245312311	G0051	1353353243	G0084	4223544331	G0117	4454211223	G0150	1354212134	G0182	3345313213
	G0017	1235321234	G0050	4245312313	G0083	2123435323	G0116	4354213544	G0149	3345312432	G0181	2123354234
	G0016	4454233212	G0049	2343533211	G0082	4434213532	G0115	3445431323	G0148	1354242232	G0180	2232134534
	G0015	2245344213	G0048	3324542132	G0081	4421134543	G0114	3213133543	G0147	4233455431	G0179	4345434212
	G0014	1233533443	G0047	3124533533	G0080	2323313544	G0113	2113135543	G0146	3345311224	G0178	2435354313
	G0013	2313554234	G0046	1354453244	G0079	2132345532	G0112	2453133543	G0145	3453124234	G0177	2455431322
	G0012	2231335424	G0045	2213453311	G0078	2445531134	G0111	3224233531	G0144	1354532242	G0176	4235533121
	G0011	1334424534	G0044	1213353433	G0077	1343534312	G0110	3442353122	G0143	4334532431	G0175	1133454312
	G0010	3423123543	G0043	1354431323	G0076	3355423213	G0109	1324324533	G0142	1235442212	G0174	4212235331
	G0009	2342453531	G0042	2213534232	G0075	1243453243	G0108	2454344312	G0141	1224542331	G0173	2313343532
	G0008	1122354534	G0041	4354245421	G0074	3354533212	G0107	1335423542	G0140	3355312343	G0172	3124544244
	G0007	4323532231	G0040	4313345421	G0073	1123453533	G0106	4213542121	G0139	3313244533	G0171	3445353211
/	G0006	1313534322	G0039	4235331232	G0072	4242235421	G0105	3213542422	G0138	2311354531	G0170	1321243534
	G0005	4331245332	G0038	3224534231	G0071	1242355424	G0104	1121353242	G0137	1223532423	G0169	2354312231
	G0004	1243345423	G0037	2343133534	G0070	4354331233	G0103	1353233421	G0136	2353343311	G0168	3455443312
	G0003	3135543232	G0036	2454353121	G0069	4212435534	G0102	2133245331	G0135	2235453113	G0167	1343532421
	G0002	2131353344	G0035	2353135343	G0068	1342335542	G0101	1245423223	G0134	2355421124	G0166	1213534424
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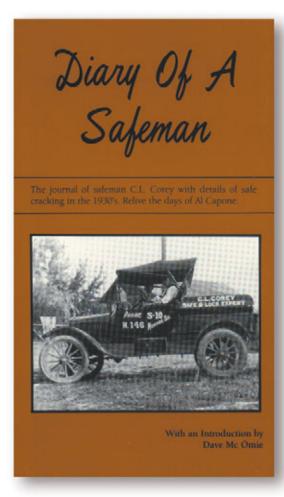
**Continued on page 171**July 2002 • **169** 

Continued from page 169

## Saturn "G" Series G0001-G3631

					, .	
	G0197	1234335531	G0250	3124531131	G0303	4453124543
	G0198	2313324532	G0251	3324535331	G0304	2443553311
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	G0200	3134545424	G0253	1233453543	G0306	1235423434
	G0201	3132453244	G0254	1223445421	G0307	4235343212
	G0202	4421335323	G0255	1223354531	G0308	3234453531
	G0203	2124545332	G0256	2123533224	G0309	3124435312
	G0204	2113435421	G0257	3122354532	G0310	1355342131
	G0205	2453124343	G0258	3344542313	G0311	3121245342
	G0206	2434554231	G0259	4423453312	G0312	4323533121
	G0207	2135332422	G0260	3454542121	G0313	3424245431
	G0208	2231344542	G0261	1313542132	G0314	4235323211
	G0209	1245531312	G0262	4311213544	G0315	3435332132
	G0210	2443531323	G0263	4235433211	G0316	1332454313
	G0211	2345422131	G0264	3121354433	G0317	2334542133
	G0212	2455313423	G0265	4453212112	G0318	4312433534
	G0213	2134544532	G0266	1123245313	G0319	3422133532
	G0214	1234542432	G0267	3123533424	G0320	1213544311
	G0215	4213554331	G0268	1223453112	G0321	1354235433
	G0216	2233453121	G0269	2355324421	G0322	2212435332
	G0217	1121245324	G0270	2353431313	G0323	3133243534
	G0218	3232454313	G0271	4245423211	G0324	2445543132
	G0219	4311353124	G0272	3124453244	G0325	1313533244
	G0220	2354543421	G0273	4354221224	G0326	4231235344
	G0221	3344543121	G0274	1231343532	G0327	4353321343
	G0222	1133424543	G0275	2124354532	G0328	2235311244
	G0223	3344245431	G0276	3454422123	G0329	2431353321
	G0224	4354312121	G0277	3213345344	G0330	2213235342
	G0225	1232445531	G0278	4313531211	G0331	3423543531
	G0226	2324554221	G0279	2455321312	G0332	4453312433
	G0227	3432135331	G0280	4343245421	G0333	3213454211
	G0228	1235334424	G0281	1353431244	G0334	3112245443
	G0229	2455442123	G0282	2453131213	G0335	1234533232
	G0230	3234542211	G0283	3124435534	G0336	2431245542
	G0231	4312323543	G0284	3443354213	G0337	4244553123
	G0232	1334554422	G0285	3124553313	G0338	4454224531
	G0233	3353432311	G0286	3124355344	G0339	2453324421
	G0234	1354243132	G0287	3445534231	G0340	4243532213
	G0235	2453344531	G0288	1232243533	G0341	4435431244
	G0236	2445442431	G0289	4354232133	G0342	2342244531
	G0237	4454221133	G0290	1223535343	G0343	4212313533
	G0238	3243135313	G0291	1335534233	G0344	2353422321
	G0239	3245321213	G0292	4224213531	G0345	3213531243
	G0240	2442313543	G0293	2312454433	G0346	4354242321
	G0241	4344354212	G0294	4422135531	G0347	3212245342
	G0242	4235431324	G0295	4224533211	G0348	2442335531
	G0243	1244543422	G0296	1234245342	G0349	4353532134
	G0244	4345342231	G0297	1354354243	G0350	4213355442
	G0245	1345312112	G0298	4242245331	G0351	2244345421
)	G0246	3234554231	G0299	1221135343	G0352	2245421321
	G0247	2424353131	G0300	1345442442	G0353	2453113531
	G0248	4435322321	G0301	1231345311	G0354	1244545334
	G0249	2354324213	G0302	4455322331	G0355	1312235423

# Diary Of A Safeman



This book is a real gem...the private safe diary of old time safecracker C.L. Corey.

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#DIARY

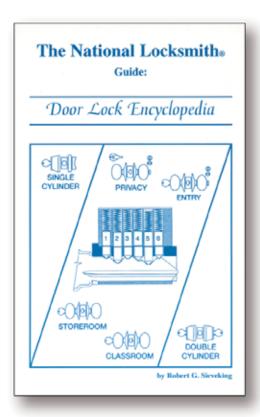
# Saturn "G" Series G0001-G3631

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G0356	4435533123	G0409	4335543124	G0462	2422353313	G0515	1245311232	G0568	4311234543	G0621	2455423431	
G0357	1324534231	G0410	3134344532	G0463	4211345532	G0516	3322354212	G0569	4324353113	G0622	3242124531	
G0358	1335354321	G0411	3453532431	G0464	1244532424	G0517	1135334242	G0570	1353224542	G0623	4223553132	
G0359	1132124533	G0412	2455323122	G0465	2332135344	G0518	3423313544	G0571	1124455423	G0624	3245424421	
G0360	2231355442	G0413	1324335311	G0466	1134543423	G0519	2453434313	G0572	4243535421	G0625	1331234532	
G0361	4422445331	G0414	1345532131	G0467	3353213534	G0520	1234235434	G0573	4453321224	G0626	3311355324	
G0362	3113533242	G0415	3423531334	G0468	1233545311	G0521	2355311244	G0574	3212455322	G0627	1313554322	
G0363	3235334321	G0416	1345454211	G0469	3443553121	G0522	4454231213	G0575	4353132331	G0628	1322423543	
G0364	4455311321	G0417	2345435311	G0470	3123235422	G0523	4213445422	G0576	4354531234	G0629	3224245311	
G0365	2353454211	G0418	4223353132	G0471	1234542213	G0524	1354233233	G0577	4245435331	G0630	2331244534	
G0366	3453123442	G0419	3342453231	G0472	1234531243	G0525	1133455422	G0578	3345533124	G0631	2345534211	
G0367	3435331224	G0420	1311224542	G0473	3235453231	G0526	2334235331	G0579	1334223543	G0632	3245433531	
G0368	1354435322	G0421	3453313422	G0474	2454213132	G0527	1242434544	G0580	2133454531	G0633	4453442134	
G0369	4342454421	G0422	2432445313	G0475	1343554224	G0528	3211354311	G0581	2335443133	G0634	4453232311	
G0370	2244534311	G0423	1124531221	G0476	2355334221	G0529	2453212244	G0582	3312353432	G0635	4245322431	
G0371	4453123132	G0424	3435453211	G0477	3123354423	G0530	4353211224	G0583	4235332121	G0636	1242435332	
G0372	1312453534	G0425	2453543321	G0478	2135344533	G0531	3245312131	G0584	2433533122	G0637	2235313434	
G0373	3244532212	G0426	3224545311	G0479	4232455312	G0532	2213542113	G0585	3353531242	G0638	3423135434	
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G0376	3353242123	G0429	1235442434	G0482	1213224533	G0535	3354244213	G0588	4242123534	G0641	2235433421	
G0377	1123544243	G0430	2131354531	G0483	3113445312	G0536	2354532312	G0589	4313543213	G0642	4221245431	
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G0379	1213245423	G0432	2335323124	G0485	2134245432	G0538	2135453321	G0591	2331345423	G0644	1335332242	
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G0382	2131233544	G0435	2124345343	G0488	2435335313	G0541	2445312434	G0594	1344531121	G0647	2133554423	
G0383	2212354533	G0436	3113532433	G0489	4353422134	G0542	1121335344	G0595	3124345533	G0648	2234532321	
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G0392	1224544213	G0445	4244353312	G0498	1321345322	G0551	1321355422	G0604	1311354432	G0657	4353231243	
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G0394	2134355423	G0447	1244542132	G0500	4221235534	G0553	4331313542	G0606	4312424534	G0659	2454213344	
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G0397	1335453121	G0449 G0450	3323554311	G0502	3354235311	G0556	3354431122	G0609	3132454543	G0662	3453213123	
						G0557						
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G0399	2454311334	G0452	2455334313	G0505	3434532312	G0558	4344335312	G0611	2455313243	G0664	4424353321	
G0400	3355421221	G0453	2231245542	G0506	3212433534 2124533431	G0559	2313423533	G0612	1353424334	G0665	2321245342	
G0401	4233532132	G0454	4434243531	G0507		G0560	4423244531	G0613	1123423544	G0666	2212235534	
G0402	3343532213	G0455	2124535442	G0508	1212353543	G0561	2443453133	G0614	2231353243	G0667	1134433532	
G0403	3124454431	G0456	3233455311	G0509	3122135342	G0562	3421245324	G0615	1224423543	G0668	3421135334	
G0404	2234553312	G0457	2353132124	G0510	1235345334	G0563	3453224331	G0616	3354424231	G0669	3445311312	
G0405	4355424331	G0458	4335353221	G0511	3122354342	G0564	1224532244	G0617	4353123311	G0670	2213532424	(
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## Saturn "G" Series G0001-G3631

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	G0680	4312445544	G0733	2453345313	G0786	3112244531
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	G0682	3422353231	G0735	4312335432	G0788	3435312121
	G0683	1335321342	G0736	4432353133	G0789	4233423531
	G0684	2455434211	G0737	2112335344	G0790	1335542422
	G0685	3235343311	G0738	3443135442	G0791	2135421211
	G0686	2421335421	G0739	1243535334	G0792	1323453234
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	G0700	1243545422	G0753	4453533112	G0806	4312435334
	G0701	3213353134	G0754	2334531134	G0807	2324545311
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	G0706	2431345324	G0759	2334453132	G0812	2353112432
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	G0709	2231245312	G0762	1344553233	G0815	2453453431
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	G0711	2343534531	G0764	3454244531	G0817	1355423233
	G0712	2431134533	G0765	3113542132	G0818	1344532334
	G0713	2324553123	G0766	3245331123	G0819	2442134542
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	G0716	4434553211	G0769	1244534544	G0822	4232324531
	G0717	4453134244	G0770	2212424531	G0823	2313533544
	G0718	2345422421	G0771	1235532243	G0824	1354243533
	G0719	3122355442	G0772	2455343132	G0825	3321353543
	G0720	1213445532	G0773	3344313532	G0826	3343235531
	G0721	3354322313	G0774	1343445421	G0827	3433532123
	G0722	3311345421	G0775	4231345544	G0828	4345323112
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	G0724	2240010102	dorri	0212010000	40000	1001100212
	G0724 G0725	2443123532	G0778	1135323234	G0831	1134223531

# Door Lock Encyclopedia



The ability to remove a lock from a door, disassemble the mechanism, and remove the lock cylinder for service is not always a simple straightforward task.

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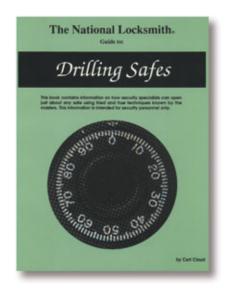
#DLE

# Saturn "G" Series G0001-G3631

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# **Drilling Safes**



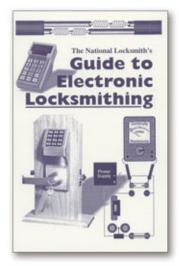
One of the most expert safemen in the country, Carl Cloud has written a very important book on safe opening.

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#DS - 1

## Electronic Locksmithing



Everyone knows there's big money in selling, installing and servicing electronic security such as mag locks, electronic strikes, and simple access control.

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#EL - 1

G1257	2424531324	G1310	2123344533	G1363	3212453221	G1416	4354211332	G1469	4342353134	G1522	3234235331	
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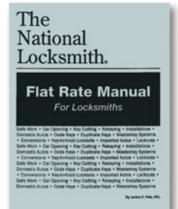
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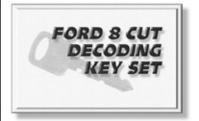
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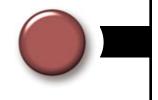
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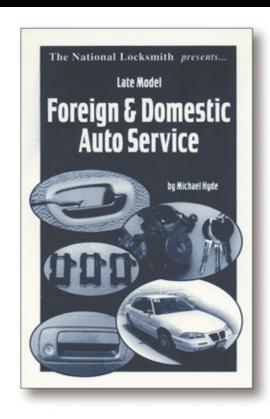
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### Saturn "G" Series G0001-G3631

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G3297	4313133224	G3306	1131223342	G3315	1322312423	G3324	4224213231	G3333	4234433431	G3386	4312232334
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## Foreign & Domestic Auto Service



This book represents the best work of Automotive Locksmithing guru Michael Hyde, author of the famous AutoSmart.

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#FDAS - 1

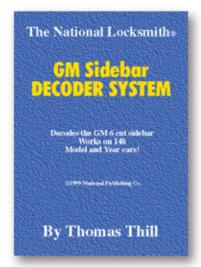
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## GM Sidebar Lock Decoder System



Tom Thill, the author of a new book, has invented an amazing new way to make keys for six cut GM Sidebar Locks.

**CLICK HERE TO LEARN MORE** 



#TT - 1



Author: Dale Sweeney (keyman@ipa.net)

Subject: Cutting keys by code

If a customer brings a code to my shop to have keys cut, am I responsible if the key doesn't work? I had a customer bring a key code for a locked up 97 Nissan Frontier. I cut the key by code, verifying the cuts, key blank, code card, and cutter were all correct. The key did not work. I only guarantee that the key is cut correctly, by code, and not that the code is correct. Is this right, or should I consider refunding the customer's money?

.......

**Author:** (keyman@island.net) **Subject:** Auto keys by code

Sometimes a customer will come in to the shop and have a key cut by code. A while later the same customer comes back and wants the money refunded because the key 'will not work'. In the meantime they had the key duplicated at some other place (cheaper then having a key cut by code) so they don't need the original key you made for them. I'll refund the money only if I go to the car and: 1. Try the key. If it fits, charge the customer for a service call. 2. In the case of a wrong code, make a key for the car and get paid for the work.

**Author:** Steve May

(un-lock@juno.com)

Subject: Refunds

I would post a sign in my shop that explains the key cutting charge and return polices (how long they're able to return etc.) but remember if you refund the customers money you will have a somewhat happy customer. I have seen some shops that only give credits (no cash). If you don't return the money, she may go around and say crap about you. Weigh how much the key is really worth, then decide. In California you can subtract it from your sales tax. Just my opinion.

Author: Ed (llkey2@yahoo.com)

**Subject:** Key by code

The two shops I have worked in did not refund money on code cut keys. We always explained to the customer that there was no guarantee on the key that was cut and explained several reasons why the key may not work.

Post a sign and always explain it to the customer first.

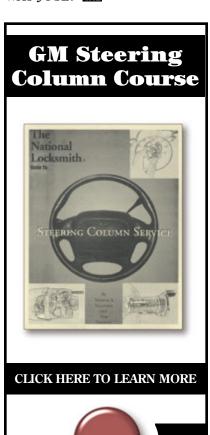
**Author:** Raymond

(compact45@earthlink.net)

Subject: NO Refunds!

Hey Dale, in response to your question, the answer is a definite "NO"! When the customer came to you, he did NOT say, "Can you originate a key for my vehicle?" He asked you to cut a key, with the code he had given you, for the vehicle that he had mentioned. And "THAT" is what you are charging them for! (The knowledge, [know how], labor, and specific equipment to be able to do this job). Now...if they gave you the wrong code, or make and model of the car (or lock), that's not your problem...it's theirs. If

you want to cut them some "slack"...that's totally up to you. (Every locksmith is different in how they work and handle their customers). Some of the above responses are exactly what I do. (Explain to them, BEFORE THE KEY IS CUT, why it may or may not work). But back to your question... Do you have to refund them their "mu-lah"? NO WAY JOSE!



#GM - 2

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## BUSINESS BRIEFS

#### Kaba Ilco adds Three New Managers

Appointed as the Marketing and Technical Training Manager is Russ Fuller, CLR. Russ is responsible for all marketing and training efforts for the Kaba High Security line of Patented Key Control products. Russ came to Kaba from Stone and Berg Wholesale Locksmith Supply where he was a Technical Sales and Service Representative.

Mike Farrell was hired as Materials Manager, and is responsible for Purchasing, Inventory Control, Production Planning, and Shipping and Receiving. Mike comes to us with twenty-five years in materials management. He previously worked for three companies whose names are familiar to us: Fletcher Terry, Roto Frank and Loctite.

Susan Butler has been hired as Controller for Kaba High Security Locks. Sue comes to Kaba after thirteen years experience at Pactiv Inc. (a packaging company). She has a very diverse background in Plant Management, Cost Accounting, Plant Controller and Materials Manager She will be responsible for IT, Accounting and Credit.



All three are based at the Southington, Connecticut factory.

#### Clark Security Products

In 1953, Clark Security Products began as a small warehouse in San Diego, California. Then owner and manager, Richard Clark, decided that maintaining superior customer service was the best way of distinguishing his business from its competitors.

Today, Clark has become a leader in the security industry with 13 locations nationwide and our tradition of service excellence continues to set us apart. Clark stocks 35,000 items from over 350 manufacturers and we guarantee same day shipping of all items in stock.

For more information: Phone: (800) 854-2088, (858) 505-1950: Fax: (858) 495-0775: E Mail: webmaster@clarksecurity.com: Web: www.clarksecurity.com.

#### SecuritySource Welcomes Jim Buonforte & Supply Line Expansion

Jim Buonforte has joined SecuritySource, a national distributor representing the products of over 150 manufactures, as Sales Manager to support its growing customer base. He can be reached at jim@securitysource.net or by calling (800) 789-8372, ext. 130.

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industry professional;
delivering BuyDirect™ and
BizTools™ live, 24 hours a
day. BuyDirect™ is a
security products
distributor, delivering
tangible benefits to both
buyers and sellers.
BizTools™ is a global
directory of service

providers and product manufacturers in access control, burglary, CCTV, fire and home automation.

For more information visit: www.SecuritySource.net; E-mail: infor@securitysource.net; Phone: (800) 789-8372; Fax: (973) 503-1919.

### Brizek Promoted at DORMA

James J. Brizek has been promoted to director of operations at DORMA Architectural Hardware and will oversee the company's manufacturing facilities in Reamstown and Steeleville. IL.



In his new position, Brizek will be responsible for production, research and development, engineering, quality control, and purchasing functions for the company's door hardware products - primarily door closers and exit devices.

For more information call: (800) 523-8483; Web: www.dorma-usa.com.

#### **JLM Stocks Cobra**

JLM Wholesale is now stocking the new Cobra! Cobra by Schlage is an architecturally designed programmable locking system. This attractive, battery-powered cylindrical lockset is ideal for new construction or retrofit



applications. Up to 10,013 to 8-digit user codes can be programmed right at the keypad. This lock features green and red LED indicators.

For more information on Schlage and other Ingersoll-Rand products log on to www.jlmwholesale.com or call 800-522-2940.

### Securitron Honored with Coveted Award

The Door Control Wizard CD has been honored with the coveted Product Achievement Award for Business Services at the Security Industry Association's New Product Showcase at the recent International Security Conference held in Las Vegas, Nevada.

The Wizard builds the door system based on industry best practices and U.S. and Canadian Building Codes. There are over 25,000 lines of code making more than 10,000 decisions across thousands of possible door control configurations.

Copies of the Securitron Door Control Wizard are available Free at any Securitron distributor or contact Securitron at: (800) 624-5625. E-mail: lit@securitron.com, or visit our Web site: www.siaonline.org.

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ormally a slipping clutch is one of the easier safe malfunctions to open. In most cases you have one person push on the door to release bolt pressure while another person pulls and slowly turns the handle to the right. In this case, the clutch was simply loose. On the higher end gun safes with the high gloss paint job,

we do everything possible to keep from drilling a hole in this finish. It is virtually impossible to repair this finish to a like new state.

In most cases, problems with this clutch are due to the handle having been removed at some point for installation in the home and improperly reinstalled, as was

the case in this instance. I decided to remove the

refused to pull off. At this point I removed the Liberty logo from the center of the handle and drilled a ¹/₄" hole dead center of the handle until it hit the shaft. Then I tapped the hole to receive a threaded bolt and tighten the bolt with a wrench until the handle slowly backed off the shaft. The handle was removed with no damage except for the threaded hole that will be covered by the new Liberty Logo. (See photograph 1.)



1. A Liberty Presidential model P25.



2. The drill guide is then drilled and tapped for two setscrews.

handle and drill a hole completely through the handle shaft and pick the large gear back slowly through the handle shaft. The first problem I encountered was this handle shaft was severely burred and the handle

At this point I used a drill bit guide made for us at the machine shop. The guide is drilled with a \$1/4" hole all the way through, then enlarged one end to the diameter of the safe handle. The drill guide is then drilled and tapped for two setscrews to hold it to the handle shaft. (See photograph 2.) This photograph also shows the drill bit, drill guide and handle shaft after it was drilled open.

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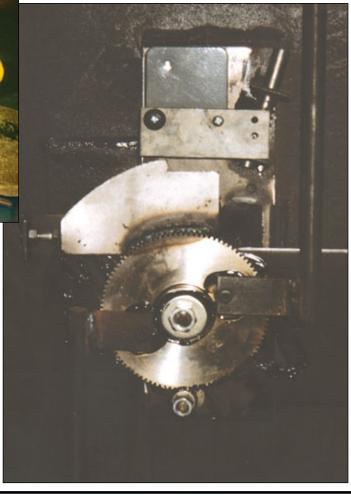


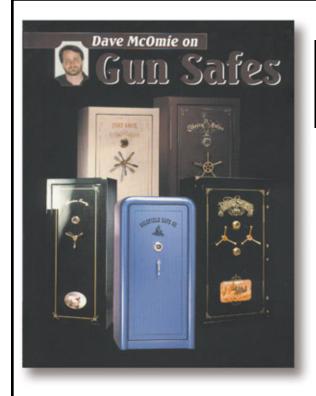
#### 3. The drill guide installed.

I installed the guide on the handle shaft then used a long <sup>1</sup>/<sub>4</sub>" bit to drill the handle shaft and a pair of vice-grips to keep the guide from turning. (See photograph 3.) Once the handle shaft was drilled through, it was a simple matter of rotating the clutch gear.

Photograph 4, shows the bolt work and hard plate coverage with the clutch reinstalled correctly on a new handle shaft.

4. The clutch reinstalled correctly on a new handle shaft.and tapped for two setscrews.





# Gun Safes

Need a drill point or relocker drill point on a gun safe?

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#### **Adrian Steel**



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www.adriansteel.com

#### **Desktop Dispatcher**



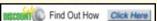
www.desktopdispatcher.com

#### **DiMark International**



Discount Safe Co., Inc.





www.discountsafecoinc.com

#### **Dynalock Corp.**

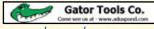
DynaLock Corp.

www.dynalock.com

#### Framon Mfg. Co. RAMON MANUFACTURING CO

www.framon.com

#### **Gator Tool Co.**



www.aduxpond.com

#### **Herbert L. Flake Co.**



HPC. Inc.



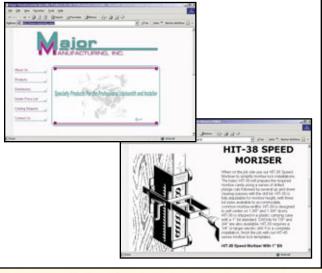
www.hpcworld.com

### **Major Manufacturing Co.** http://www.majormfg.com

Major Manufacturing's web site gives you a complete and close up look at every aspect of the product line. You'll get a complete list of distributors and even suggested dealer prices on all tools and equipment. And the price list is nicely protected, requiring you to enter a particular Master Lock code to gain access.

You can easily request a product catalog to be mailed to you, but you may not even need to bother since the product section allows you to view illustrations and specs on each item offered.

This site is simple, graphically attractive and loads fast. While you can't order online, you won't have any trouble finding a distributor in your area. The tools are unique, and you know how much you love your toys!





#### **International Locking** Devices, Ltd.

Indiana Cash Drawer Co.

International Locking Devices, Ltd.

www.gatelock.com

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#### Jet Hardware Mfg. Co.





#### **KustomKey**

www.kustomkey.com

#### **MAG Security**



#### **Major Manufacturing**



www.majormfg.com

#### McDonald DASH **Locksmith Supply**



www.mcdonalddash.com



www.mdsincorporated.com

#### **Monaco Lock**



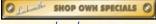
www.monacolock.com

#### **National Auto Lock** Service, Inc.

National Auto Lock Service, Inc....the car go

www.laserkey.com

#### **Omaha Wholesale Hardware**



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Tektone and Business information and 1971. www.tektone.net

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Manufacturers and distributors... join the high profile locksmith web site and you'll be featured here! Call Jeff Adair (ext. 15) or Debbie Schertzing (ext. 16) for details. (630) 837-2044

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# TEST DRIVE

We have all found ourselves needing to secure something where a deadbolt, knoblock or padlock, just wouldn't fit the application. The are some applications where a rigid deadbolt or padlock is the perfect choice, and there are some applications where something more flexible is needed.

That's where the new Python lock by Master Lock Co. is the perfect choice.

#### **PRODUCT:**

The new Python lock by Master is a menacing name for a rather clever locking device. The Python is an adjustable locking cable that can be cinched up tight and secured, thus the name Python. It can squeeze its victim tight and won't let go.

This exclusive patented product holds a flexible steel cable tight at any position for infinite locking possibilities. It is the perfect choice for those large applications that need to be secured or where a flexible locking device is the only thing that will work.

#### **SPECIAL FEATURES:**

- Offers infinite locking positions with a patented lock that holds a cable tight at any position from 1-foot to 6-feet
- A quick change interchangeable cable
- Cylinders can be ordered keyed alike
- Cut resistant 3/8" steel braided cable
- Weather tough rust resistant aluminum lock body
- Scratch resistant vinyl cable sleeve and lock body bumper
- Velcro strap to hold excess cable for compact storage

As an example, the python easily



secures bikes, lawn furniture, lawn mowers, canoes, boats, skis, snowboards, generators, pickup truck cargo, spare tire, ladders and much more.

This is an interesting locking device that can do what no padlock I am aware of can do. I have used several cable locking devices before, but never one that could be cinched tight and secured. You were always left with a loop of cable flopping around and the item being secured was unstable.

The Python offers the ability to secure items needing extended length security, while still offering the ability to fasten an object in place.

#### CONSTRUCTION:

The featured 6-foot, 3/8" steel braided cable, thwarts cutting attacks by traditional bolt cutters. While traditional bolt cutters work on rigid materials that with force can be broken, in an attempt to cut a cable, the cable collapses instead of breaking. Bolt cutters are rendered useless.

The aluminum lock housing and body bumper are designed to resist sledge hammer attacks and secure a 4-pin cylinder.

#### LOCKING DESIGN:

The locking aspect of the Python is a simple cantilever design. Once the plug is locked a pivoting rectangle locking slug is pushed against the cable. When pulling force is applied to the cable to

release it, the locking slug within the lock body pivots slightly to pin the cable in place. The more you pull, the more it locks in place. The cable can be cinched tighter in the locking direction, however not in the unlocking direction. This design reminds me of those old Chinese bamboo finger sleeve locks. Once your fingers are inserted, the more you pulled on the device, the more you fingers were locked in. It's a simple, but effective design.

#### **CABLE REPLACEMENT:**

Should a cable ever need to be replaced, it can be done in seconds. To replace a cable simply pivot the secured end in the lock housing and the cable slides right out. Drop a new one in and your done. It's that quick.

#### PRICE

The suggested retail price for the Python is \$23.22.

#### **CONCLUSION:**

There are undoubtedly several locking applications where nothing else but a locking cable design will do. Just about any large object needing to be secured would apply. What makes the Python unique is that it offers flexible locking ability and can also be cinched tight, unlike other cable devices. When traditional locking devices just don't fit the bill, the Python is probably the next best choice.

For more information on Master locks contact:

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Fax: (414) 449-3162

Web: www.masterlock.com

Circle 286 on Rapid Reply.

#### **IN SUMMARY:**

**DESCRIPTION:** The Python is an adjustable locking cable that can be cinched up tight and secured.

**PRICE:** \$23.22

**COMMENTS:** This exclusive patented product holds a flexible steel cable tight at any position for infinite locking possibilities.

**TEST DRIVE RESULTS:** When traditional locking devices won't work the Python is probably the next best choice.

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